DiskPulse

DISK CHANGE MONITOR

User Manual

Version 8.1

Dec 2015

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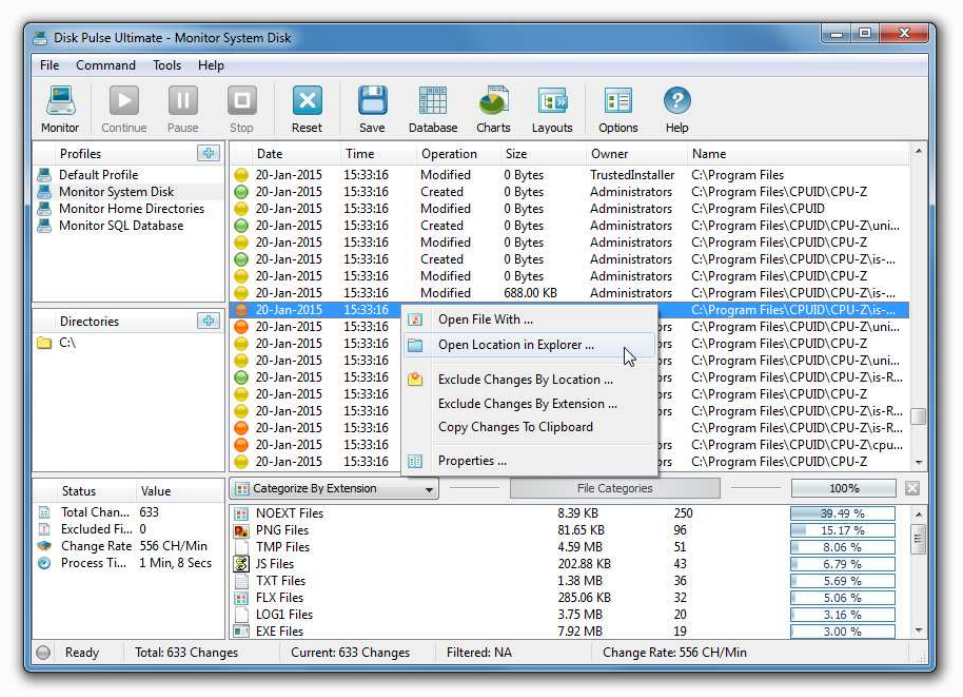
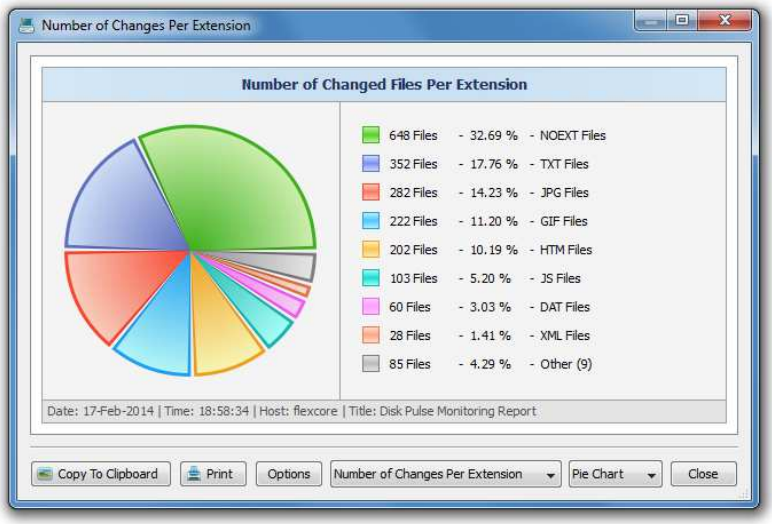
1 DiskPulse Overview

DiskPulse is a powerful real-time disk change monitoring solution allowing one to monitor changes in one or more disks and directories, send E-Mail notifications, save various types of reports, generate statistical pie charts, export detected changes to an SQL database, send error messages to the system event log and execute custom commands when a user-specified number of changes detected.

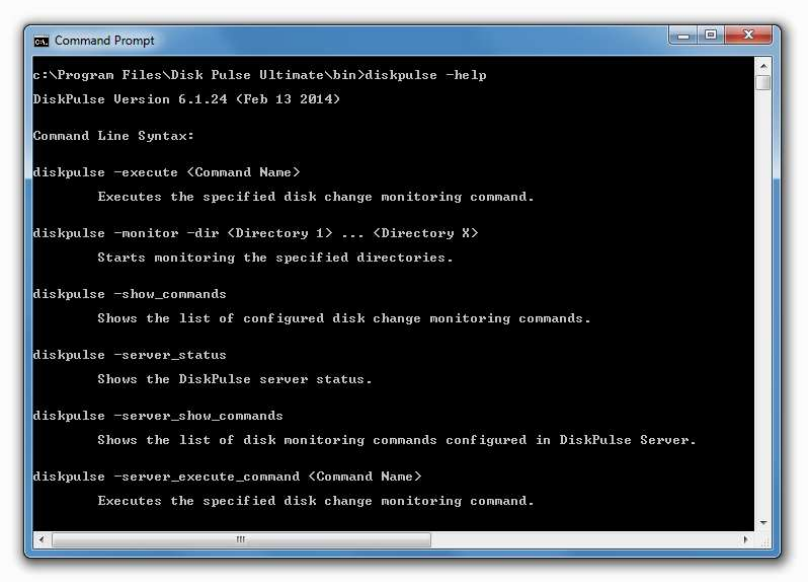

Disk Pulse Ultimate - Monitor System Disk
File Command Tools Help
Monitor Continue Pause Stop Reset Save Database Charts Layouts Options Help
Profiles
Default Profile
Monitor System Disk
Monitor Home Directories
Monitor SQL Database
Directories
C:\
Date Time Operation Size Owner Name
Open File With ...
Open Location in Explorer ...
Exclude Changes By Location ...
Exclude Changes By Extension ...
Copy Changes To Clipboard
Properties ...
Status Value
Total Chan... 633
Excluded Fi... 0
Change Rate 556 CH/Min
Process Ti... 1 Min, 8 Secs
Categorize By Extension
File Categories
100%
NOEXT Files 8.39 KB 250 39.49 %
PNG Files 81.65 KB 96 15.17 %
TMP Files 4.59 MB 51 8.06 %
JS Files 202.88 KB 43 6.79 %
TXT Files 1.38 MB 36 5.69 %
FLX Files 285.06 KB 32 5.06 %
LOG1 Files 3.75 MB 20 3.16 %
EXE Files 7.92 MB 19 3.00 %
Ready
Total: 633 Changes
Current: 633 Changes
Filtered: NA
Change Rate: 556 CH/Min

DiskPulse intercepts file system change notifications issued by the operating system and detects newly created files, modified files, deleted files and renamed files. All file system changes are detected in real-time allowing one to send an E-Mail notification, execute a custom command and/or save a disk change monitoring report within a couple of seconds after one or more critical changes detected.

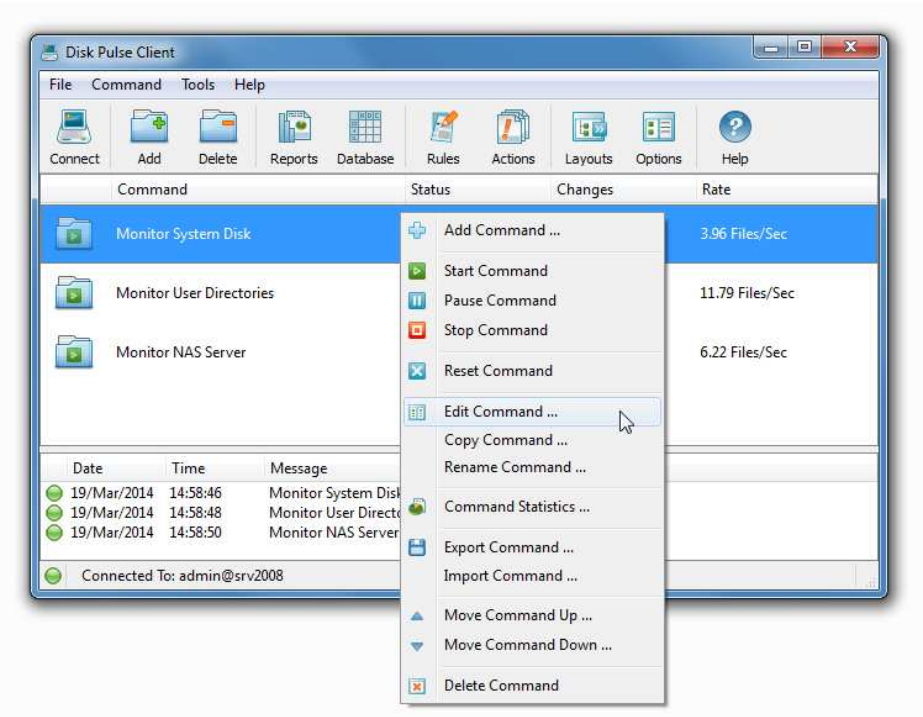

Number of Changes Per Extension
Number of Changed Files Per Extension
648 Files - 32.69 % - NOEXT Files
352 Files - 17.76 % - TXT Files
282 Files - 14.23 % - JPG Files
222 Files - 11.20 % - GIF Files
202 Files - 10.19 % - HTM Files
103 Files - 5.20 % - JS Files
60 Files - 3.03 % - DAT Files
28 Files - 1.41 % - XML Files
85 Files - 4.29 % - Other (9)
Date: 17-Feb-2014 | Time: 18:58:34 | Host: flexcore | Title: Disk Pulse Monitoring Report
Copy To Clipboard
Print
Options
Number of Changes Per Extension
Pie Chart
Close

The user is provided with the ability to review, categorize and filter detected file system changes, generate various types of statistical pie charts showing the number of changes per file extension, the number of changes per change type, the number of changes per user, etc.

In addition to the GUI application, DiskPulse Ultimate and DiskPulse Server provide a command line utility, which can be used to execute disk change monitoring operations locally and control one or more DiskPulse Servers through the network. The DiskPulse command line utility provides the ability to control disk change monitoring operations from shell scripts and batch files and allows one to integrate DiskPulse capabilities into user-custom solutions.


Command Prompt
c:\Program Files\Disk Pulse Ultimate\bin>diskpulse -help
DiskPulse Version 6.1.24 (Feb 13 2014)
Command Line Syntax:
diskpulse -execute <Command Name>
Executes the specified disk change monitoring command.
diskpulse -monitor -dir <Directory 1> ... <Directory X>
Starts monitoring the specified directories.
diskpulse -show_commands
Shows the list of configured disk change monitoring commands.
diskpulse -server_status
Shows the DiskPulse server status.
diskpulse -server_show_commands
Shows the list of disk monitoring commands configured in DiskPulse Server.
diskpulse -server_execute_command <Command Name>
Executes the specified disk change monitoring command.

IT professionals and enterprise customers are provided with DiskPulse Server - a server-based product version, which runs in the background as a service and can be controlled using a full-scale client GUI application or a command line utility locally or through the network. DiskPulse Server allows one to monitor multiple disks or directories simultaneously, send disk change monitoring reports to a centralized SQL database and generate history trend analysis reports.



Finally, corporate customers are provided with the DiskPulse Enterprise product version, which is capable of receiving disk change monitoring reports from multiple production servers, searching critical changes across the entire database, analyzing reports using a centralized set of user-defiled rules and policies and sending E-Mail notifications when critical issues are detected in one or more disk change monitoring reports received from production servers.

2 DiskPulse Product Versions

Features	Pro	Ultimate	Server	Enterprise
Maximum Number of Files	10 M	50 M	100 M	Unlimited
Maximum Storage Capacity	10 TB	50 TB	100 TB	Unlimited
Maximum Number of Monitors	10	50	100	Unlimited
Support for Unicode File Names	Yes	Yes	Yes	Yes
Support for Long File Names	Yes	Yes	Yes	Yes
Monitor Multiple Disks or Directories	Yes	Yes	Yes	Yes
User-Selectable Monitoring Events	Yes	Yes	Yes	Yes
File Categories and File Filters	Yes	Yes	Yes	Yes
Option to Monitor Specific File Types	Yes	Yes	Yes	Yes
Option to Send E-Mail Notifications	Yes	Yes	Yes	Yes
Option to Execute Custom Commands	Yes	Yes	Yes	Yes
HTML, Text, PDF and Excel CSV Reports	Yes	Yes	Yes	Yes
SQL Database Integration	No	Yes	Yes	Yes
Option to Search Changes in the Database	No	Yes	Yes	Yes
Disk Monitoring Command Line Utility	No	Yes	Yes	Yes
Runs in the Background as a Service	No	No	Yes	Yes
Multiple, Parallel Monitoring Operations	No	No	Yes	Yes
DiskPulse Client GUI Application	No	No	Yes	Yes
OEM Product Version	No	No	Yes	Yes
Centralized Reports Database	No	No	No	Yes
Centralized Reports Analysis Rules	No	No	No	Yes
Disk Change Monitoring History Statistics	No	No	No	Yes
Web-Based Management Interface	No	No	No	Yes
Price	**$25**	**$50**	**$125**	**$375**

* Product features, prices and license terms are subject to change without notice.

3 Using Desktop Product Version

3.1 Product Installation

DiskPulse is available as a free download on our web site and from a large number of software directories from around the world. To be sure you are getting the latest product version check the following page: http://www.diskpulse.com/downloads.html

Disk Pulse Ultimate 6.1.24 (64-Bit) Setup
DiskPulse
DISK CHANGE MONITOR
Choose Install Location
Choose the folder in which to install Disk Pulse Ultimate 6.1.24 (64-Bit).
Setup will install Disk Pulse Ultimate 6.1.24 (64-Bit) in the following folder. To install in a different folder, click Browse and select another folder. Click Install to start the installation.
Destination Folder
C:\Program Files\Disk Pulse Ultimate
Browse...
Space required: 18.0MB
Space available: 47.4GB
NSIS v2.46
< Back
Install
Cancel

DiskPulse is especially designed to be as simple as possible. The installation procedure is very simple, requires no special knowledge and may be completed in less than 20 seconds. There is no need for any additional software. Just download the DiskPulse installation package, run the setup program and you are done.

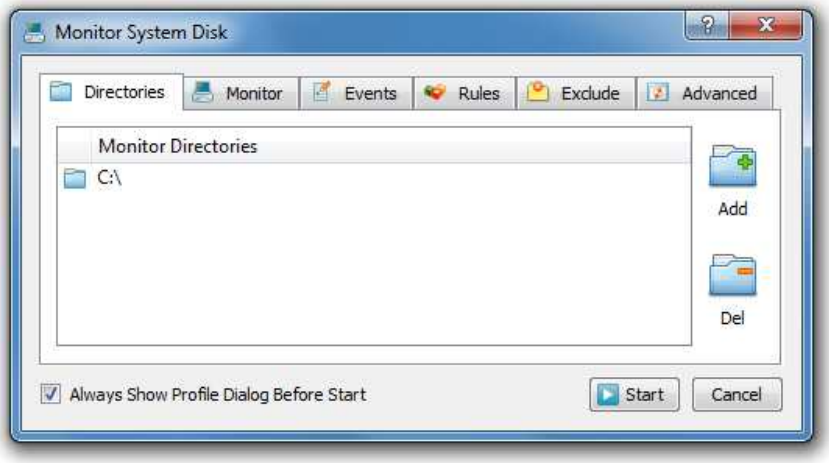
Disk Pulse Ultimate 6.1.24 (64-Bit) Setup
DiskPulse
DISK CHANGE MONITOR
Completing the Disk Pulse Ultimate 6.1.24 (64-Bit) Setup Wizard
Disk Pulse Ultimate 6.1.24 (64-Bit) has been installed on your computer.
Click Finish to close this wizard.
Run Disk Pulse Ultimate 6.1.24 (64-Bit)
Add Disk Pulse Ultimate Desktop Icon
Disk Pulse Ultimate 6.1.24 Release Notes
© 2007-2014 Flexense Ltd.
< Back
Finish
Cancel

On the 'Welcome' screen press the 'Next' button. Read the end-user license agreement and press the 'I Agree' button if you agree with the license terms or the 'Cancel' button to stop the installation process. Select the destination directory, press the 'Install' button and wait for the installation process to complete. That's all you need to do to install the DiskPulse disk change monitor utility on your computer. In order to perform a silent product installation procedure, download the latest product version, open the command prompt window and type the following command:

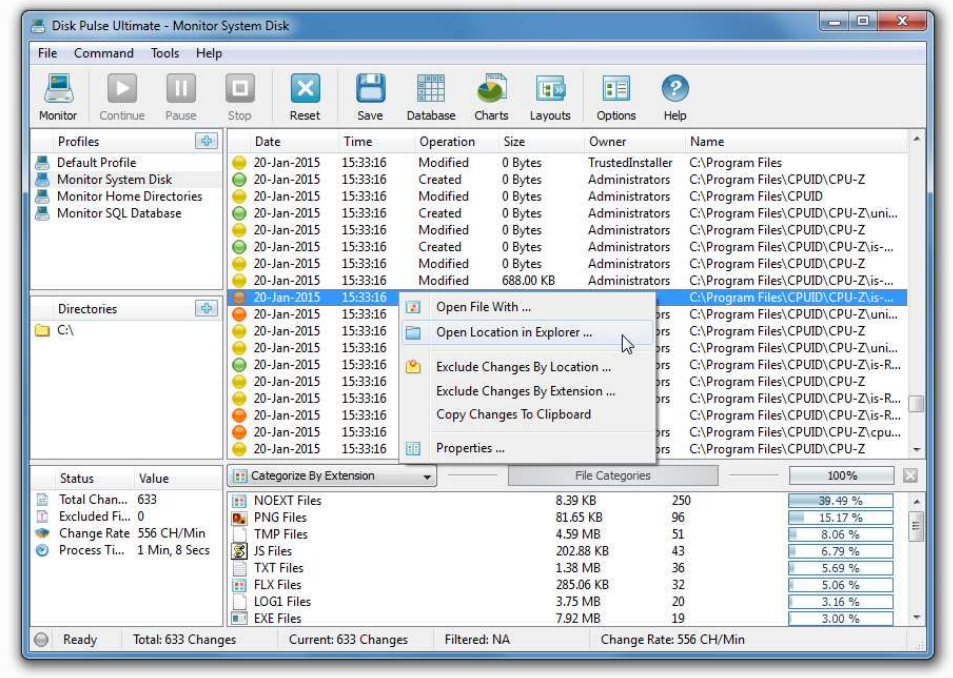
diskpulse_setup_vX.Y.Z.exe /S

3.2 Monitoring Disk Changes

The simplest way to start monitoring a disk or directory is to enter the directory name in the directory entry located under the main toolbar and to press the 'Monitor' button located in the top-left corner of the main toolbar. On the profile dialog verify that all the parameters are selected correctly and press the 'Start' button to begin the monitoring process.



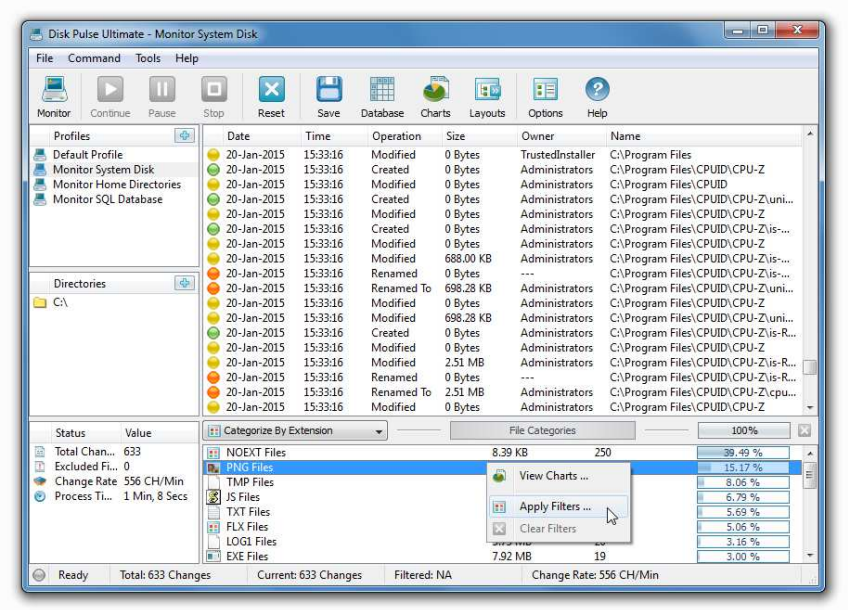
By default, DiskPulse will monitor all file system changes including file creations, modifications, file name changes, file attribute changes, file delete operations, etc. A custom set of file system change events that should be monitored may be selected on the 'Events' tab.


Disk Pulse Ultimate - Monitor System Disk
File Command Tools Help
Monitor Continue Pause Stop Reset Save Database Charts Layouts Options Help
Profiles
Default Profile
Monitor System Disk
Monitor Home Directories
Monitor SQL Database
Directories
C:\
Date Time Operation Size Owner Name
Open File With ...
Open Location in Explorer ...
Exclude Changes By Location ...
Exclude Changes By Extension ...
Copy Changes To Clipboard
Properties ...
Status Value
Total Chan... 633
Excluded Fi... 0
Change Rate 556 CH/Min
Process Ti... 1 Min, 8 Secs
Categorize By Extension
File Categories
100%
NOEXT Files 8.39 KB 250 39.49 %
PNG Files 81.65 KB 96 15.17 %
TMP Files 4.59 MB 51 8.06 %
JS Files 202.88 KB 43 6.79 %
TXT Files 1.38 MB 36 5.69 %
FLX Files 285.06 KB 32 5.06 %
LOG1 Files 3.75 MB 20 3.16 %
EXE Files 7.92 MB 19 3.00 %
Ready
Total: 633 Changes
Current: 633 Changes
Filtered: NA
Change Rate: 556 CH/Min

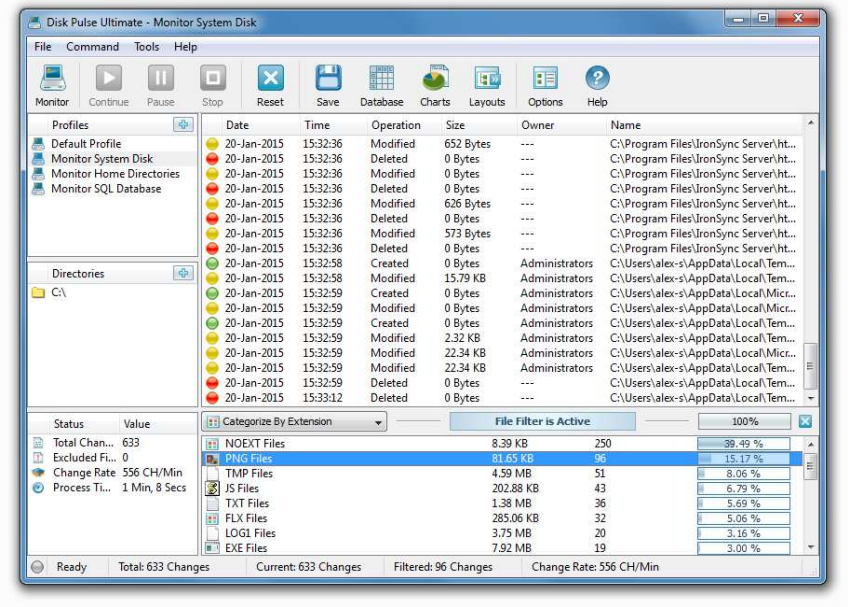
As soon as a file system change will be detected it will be displayed in the change view. In order to temporary pause the monitoring process, press the 'Pause' button. Press the 'Continue' button to resume a previously paused monitoring operation. In order to finish the monitoring process, press the 'Stop' button located on the main toolbar. Click on a change item to open the change properties dialog. Select a change item, press the right mouse button and select the 'Open With' menu item to open the changed file with another program. Select a change item, press the right mouse button and select the 'Open Location in Explorer' menu item to open the item's directory in Windows Explorer.

3.3 Using File Categories and File Filters

DiskPulse provides the ability to categorize and filter detected file system changes by the file extension, file type and change type. When monitoring one or more disks or directories, DiskPulse automatically categorizes all detected file system changes and constantly updates the list of file categories, which is located just under the change list in the main GUI application.



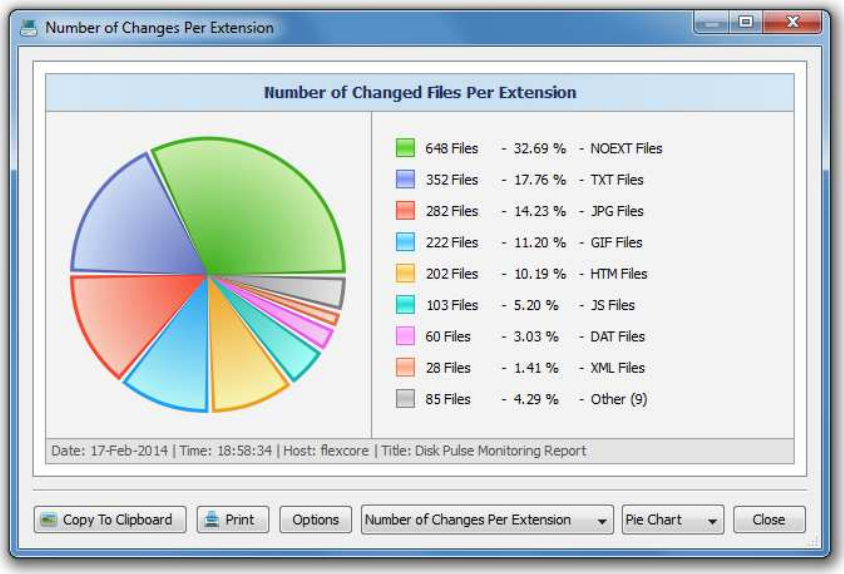
By default, DiskPulse categorizes all files by the file extension and shows a list of all types of detected file extensions sorted by the number of changed files. For each category, Disk Pulse shows the amount of disk space, the number of changed files and the percentage of changed files relative to other file categories. Use the 'Categories' combo box to categorize files by the file type or change type.


Disk Pulse Ultimate - Monitor System Disk
File Command Tools Help
Monitor Continue Pause Stop Reset Save Database Charts Layouts Options Help
Profiles
Default Profile
Monitor System Disk
Monitor Home Directories
Monitor SQL Database
Directories
C:\
Status Value
Total Chan... 633
Excluded Fi... 0
Change Rate 556 CH/Min
Process Ti... 1 Min, 8 Secs
Date Time Operation Size Owner Name
Categorize By Extension
File Filter is Active
100%
NOEXT Files 8.39 KB 250 39.49 %
PNG Files 81.65 KB 96 15.17 %
TMP Files 4.59 MB 51 8.06 %
JS Files 202.88 KB 43 6.79 %
TXT Files 1.38 MB 36 5.69 %
FLX Files 285.06 KB 32 5.06 %
LOG1 Files 3.75 MB 20 3.16 %
EXE Files 7.92 MB 19 3.00 %
Ready
Total: 633 Changes
Current: 633 Changes
Filtered: 96 Changes
Change Rate: 556 CH/Min

One of the most useful features of DiskPulse is the ability to filter detected file system changes using one or more categorized file filters. For example, in order to see all newly created files, select the change-type-based file categorization mode and double click on the 'Created Files' file category. DiskPulse will filter the list of detected disk changes and show the newly created files only.

3.4 Using DiskPulse Pie Charts

The DiskPulse disk change monitor provides multiple types of pie charts capable of showing numbers of changed files and the amount of changed disk space per extension, change type, file size and file type. In order to open the charts dialog in the DiskPulse GUI application, select the 'Command - View Charts' menu item.


Number of Changes Per Extension
Number of Changed Files Per Extension
648 Files - 32.69 % - NOEXT Files
352 Files - 17.76 % - TXT Files
282 Files - 14.23 % - JPG Files
222 Files - 11.20 % - GIF Files
202 Files - 10.19 % - HTM Files
103 Files - 5.20 % - JS Files
60 Files - 3.03 % - DAT Files
28 Files - 1.41 % - XML Files
85 Files - 4.29 % - Other (9)
Date: 17-Feb-2014 | Time: 18:58:34 | Host: flexcore | Title: Disk Pulse Monitoring Report
Copy To Clipboard
Print
Options
Number of Changes Per Extension
Pie Chart
Close

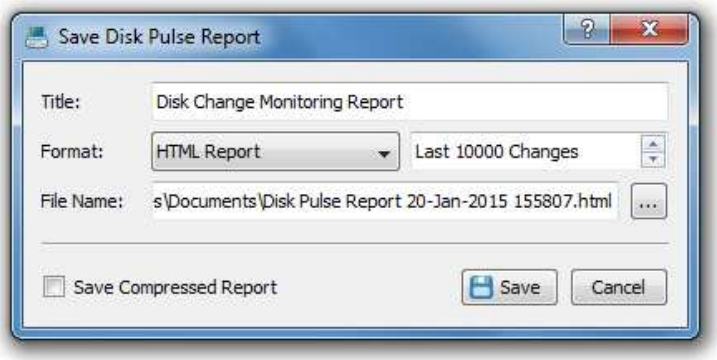
Depending on the currently selected categorization mode, the charts dialog shows numbers of files or the changed disk space per extension, change type, file size or file type. The mode selector, which is located in the bottom side of the dialog, provides the ability to switch between the available chart modes. For example, in order to open a chart showing numbers of files per file category, set the 'Categorize by File Type' change categorization mode and open the charts dialog.

Number of Changes Per Change Type
Number of Changed Files Per Change Type
360 Files - 66.79 % - Modified Files
116 Files - 21.52 % - Created Files
63 Files - 11.69 % - Deleted Files
Date: 17-Feb-2014 | Time: 18:56:08 | Host: flexcore | Title: Disk Pulse Monitoring Report
Copy To Clipboard
Print
Options
Number of Changes Per Change Type
Pie Chart
Close

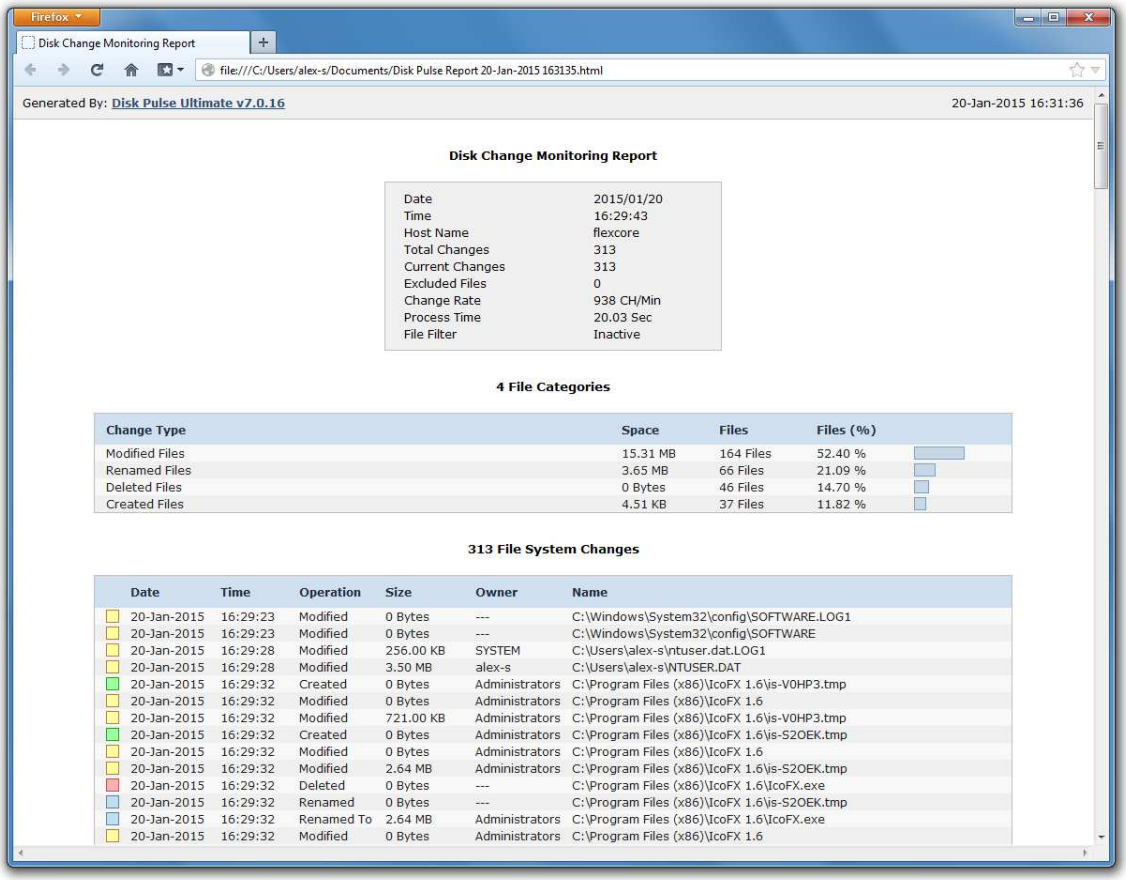
In addition, the charts dialog provides the user with the ability to copy the displayed chart image to the clipboard allowing one to easily integrate DiskPulse charts into user's documents and presentations. In order to customize the chart description, press the 'Options' button and specify a custom chart date, time or chart title.

3.5 Saving Disk Change Monitoring Reports

DiskPulse provides the ability to export disk change monitoring reports to the HTML, PDF, XML, Excel CSV and text formats. In order to export a disk monitoring report, press the 'Report' button located on the main toolbar.



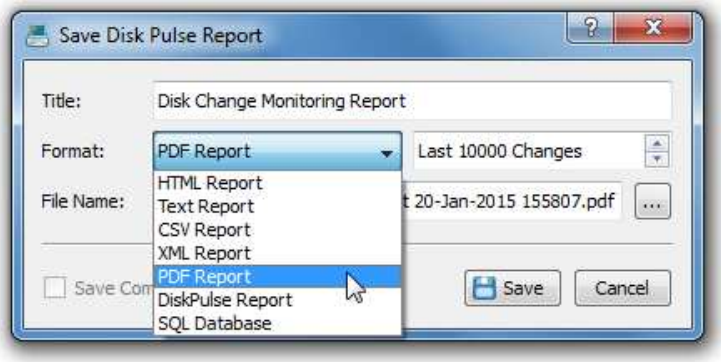
On the 'Report' dialog enter the report title, specify the file name to save the report to and select one of the following report formats: HTML, PDF, XML, Excel CSV or ASCII text. By default, DiskPulse will save a disk change monitoring report containing the last 10,000 file system changes.


Firefox
Disk Change Monitoring Report
file:///C:/Users/alex-s/Documents/Disk Pulse Report 20-Jan-2015 163135.html
Generated By: Disk Pulse Ultimate v7.0.16
20-Jan-2015 16:31:36
Disk Change Monitoring Report
Date 2015/01/20
Time 16:29:43
Host Name flexcore
Total Changes 313
Current Changes 313
Excluded Files 0
Change Rate 938 CH/Min
Process Time 20.03 Sec
File Filter Inactive
4 File Categories
Change Type Space Files Files (%)
Modified Files 15.31 MB 164 Files 52.40 %
Renamed Files 3.65 MB 66 Files 21.09 %
Deleted Files 0 Bytes 46 Files 14.70 %
Created Files 4.51 KB 37 Files 11.82 %
313 File System Changes
Date Time Operation Size Owner Name
20-Jan-2015 16:29:23 Modified 0 Bytes --- C:\Windows\System32\config\SOFTWARE.LOG1
20-Jan-2015 16:29:23 Modified 0 Bytes --- C:\Windows\System32\config\SOFTWARE
20-Jan-2015 16:29:28 Modified 256.00 KB SYSTEM C:\Users\alex-s\ntuser.dat.LOG1
20-Jan-2015 16:29:28 Modified 3.50 MB alex-s C:\Users\alex-s\NTUSER.DAT
20-Jan-2015 16:29:32 Created 0 Bytes Administrators C:\Program Files (x86)\IcoFX 1.6\is-V0HP3.tmp
20-Jan-2015 16:29:32 Modified 0 Bytes Administrators C:\Program Files (x86)\IcoFX 1.6
20-Jan-2015 16:29:32 Modified 721.00 KB Administrators C:\Program Files (x86)\IcoFX 1.6\is-V0HP3.tmp
20-Jan-2015 16:29:32 Created 0 Bytes Administrators C:\Program Files (x86)\IcoFX 1.6\is-S2OEK.tmp
20-Jan-2015 16:29:32 Modified 0 Bytes Administrators C:\Program Files (x86)\IcoFX 1.6
20-Jan-2015 16:29:32 Modified 2.64 MB Administrators C:\Program Files (x86)\IcoFX 1.6\is-S2OEK.tmp
20-Jan-2015 16:29:32 Deleted 0 Bytes --- C:\Program Files (x86)\IcoFX 1.6\IcoFX.exe
20-Jan-2015 16:29:32 Renamed 0 Bytes --- C:\Program Files (x86)\IcoFX 1.6\is-S2OEK.tmp
20-Jan-2015 16:29:32 Renamed To 2.64 MB Administrators C:\Program Files (x86)\IcoFX 1.6\IcoFX.exe
20-Jan-2015 16:29:32 Modified 0 Bytes Administrators C:\Program Files (x86)\IcoFX 1.6

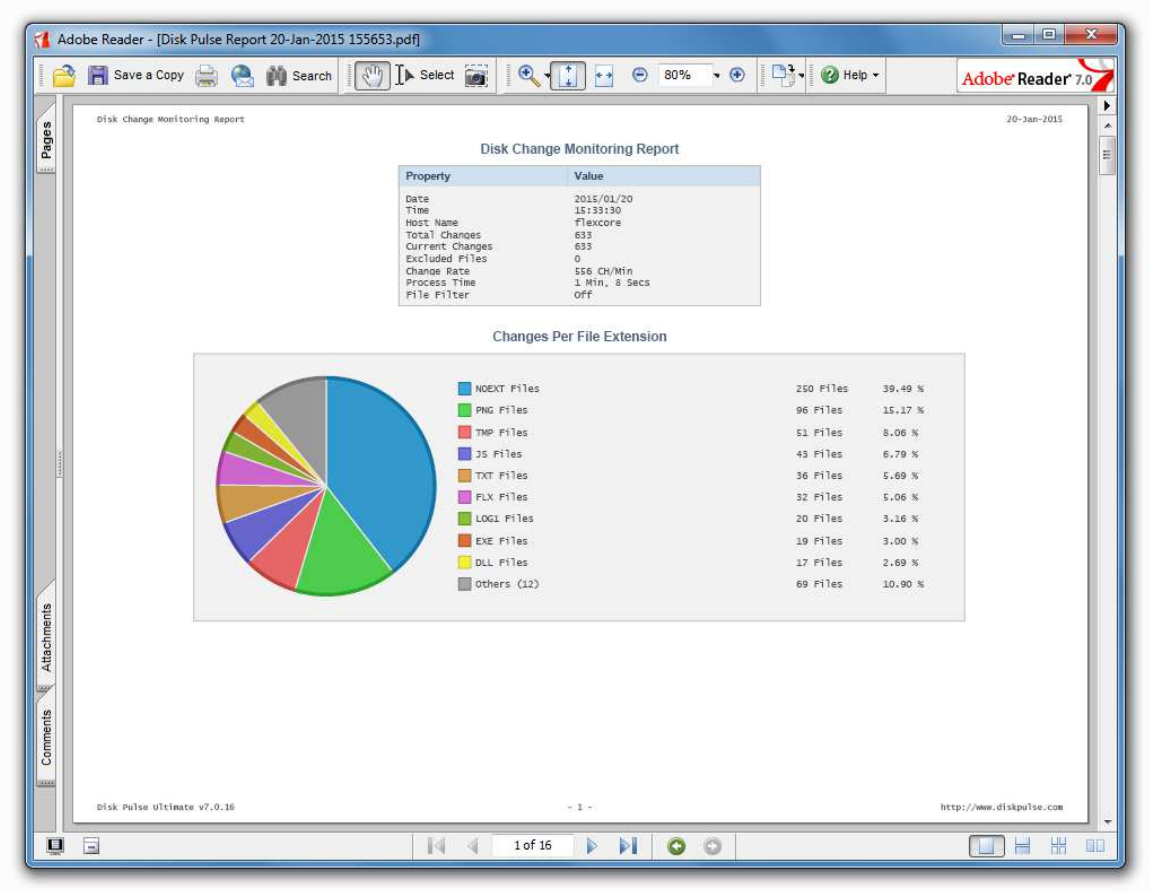
In order to export a full report containing all file system changes, increase the number of file system changes to an appropriate value. Keep in mind that disk monitoring reports containing thousands of changes may be very large and difficult to open using standard tools especially when exported to the HTML format.

3.6 Saving PDF Reports

DiskPulse Pro, DiskPulse Ultimate and DiskPulse Server allow one to export detected file system changes to PDF reports. In order to export a PDF report, detect file system changes in one or more disks or directories and press the 'Save' button located on the main toolbar.



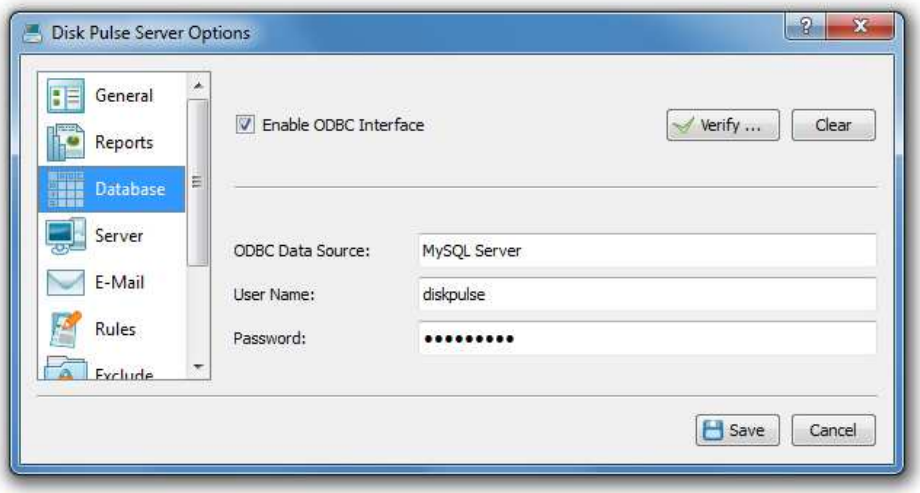
On the save report dialog, select the PDF report format, enter a report title, enter the name of the file to save the report to and press the 'Save' button. By default, DiskPulse exports the last 10,000 file system changes. In order to export a full report, which may result in a very long PDF document, just increase the number of exported file system changes to an appropriate number.



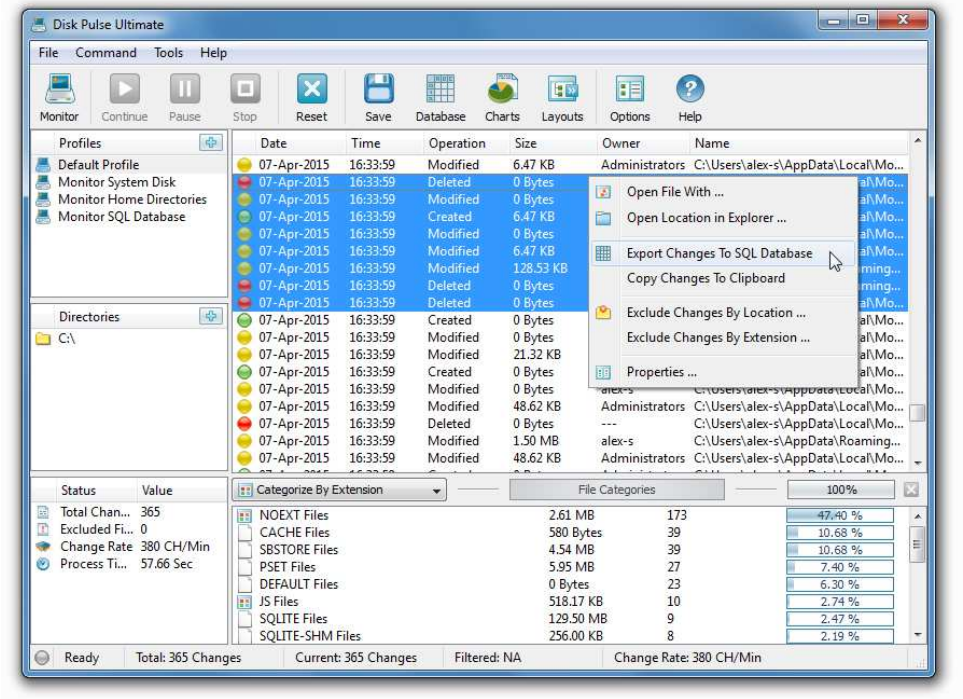
In addition to the information provided in other report formats, DiskPulse PDF reports provide more summary charts showing the number of file system changes and the amount of disk space per file extension, the number of changes per change type, the number of changes per file owner followed by the list of detected file system changes.

3.7 Exporting Changes to an SQL Database

DiskPulse Ultimate and DiskPulse Server provide the ability to export detected file system changes to an SQL database via the ODBC database interface. In order to be able to export file system changes to an SQL database, the user need to configure the ODBC database interface on the main options dialog.

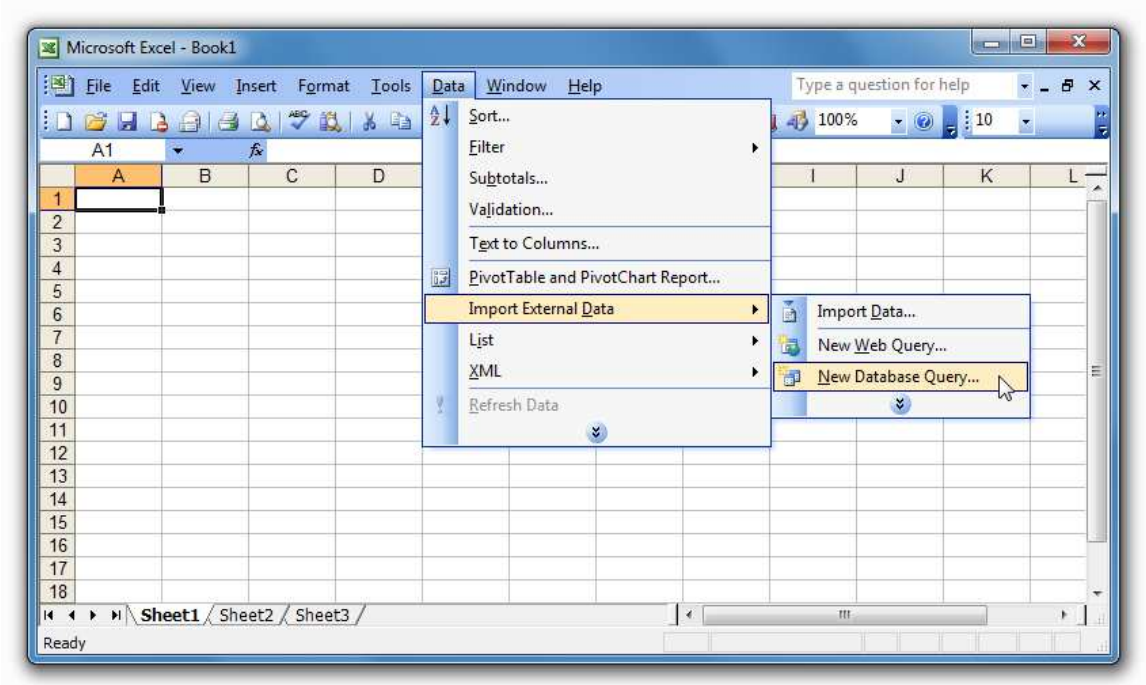


In order to configure the ODBC interface, open the main options dialog, select the 'Database' tab, enable the ODBC database interface, enter the ODBC data source name, the ODBC user name and password to use to connect to the SQL database and then press the 'Verify' button to check the specified ODBC interface.

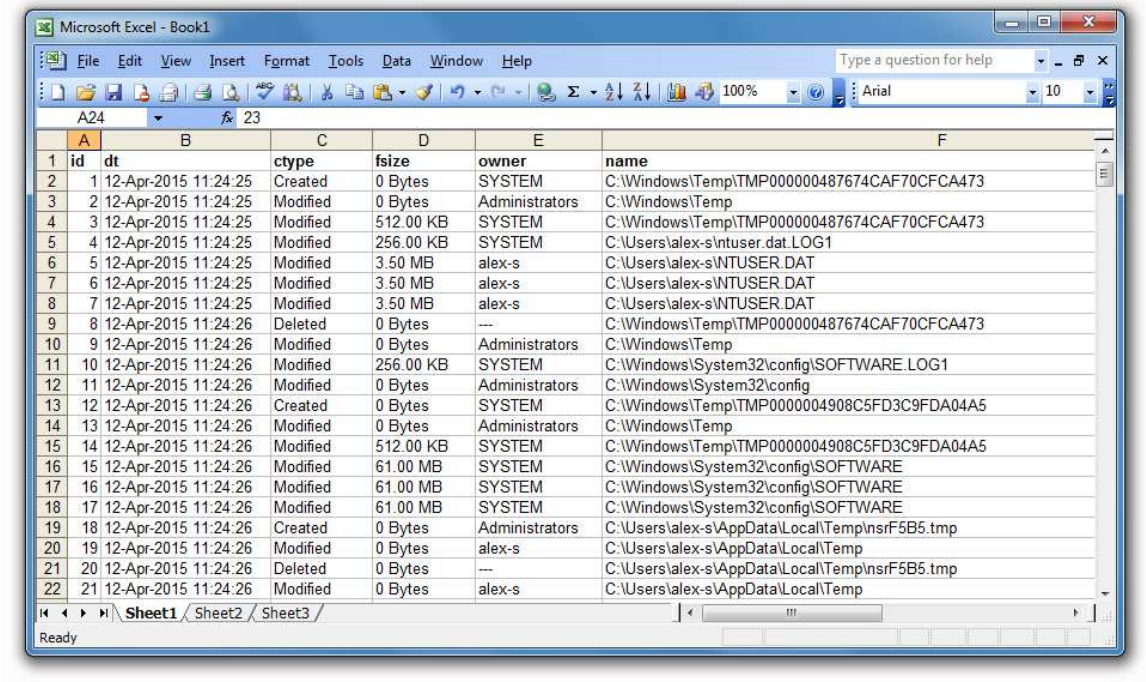


Once finished configuring the ODBC database interface, select one or more detected file system changes, press the right mouse button, select the 'Export Changes to SQL Database' menu item and enter the name of the SQL database table to export changes to. DiskPulse will connect to the specified SQL database and export the selected file system changes to the specified SQL database table.

In order to import file system changes from an SQL database to Microsoft Excel, select the menu 'Data - Import External Data - New Database Query' menu item, select the ODBC data source to import the data from, select the SQL database table name that was specified during the export operation, select SQL database table columns to be imported, optionally select the data sorting mode and press the 'Finish' button.



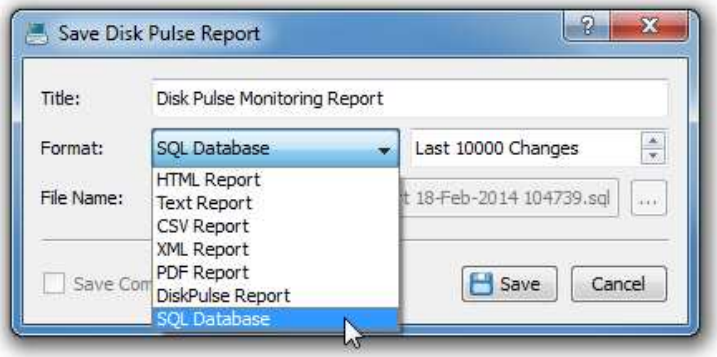
For each detected file system change, DiskPulse exports to the SQL database the following columns of data: a unique change ID, the date and time of the change, the type of the change (created, modified, renamed or deleted), the size of the file as recorded at the time of the change, the user name of the file owner and the full file or directory name.


Microsoft Excel - Book1
File Edit View Insert Format Tools Data Window Help
Type a question for help
A24 23
Sheet1 Sheet2 Sheet3
Ready

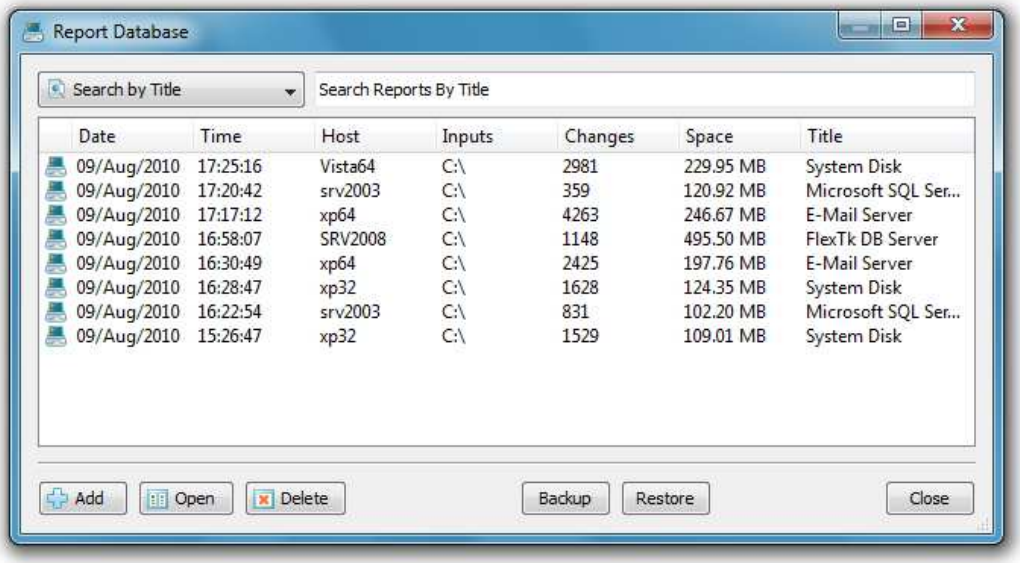
id	dt	ctype	fsize	owner	name
1	12-Apr-2015 11:24:25	Created	0 Bytes	SYSTEM	C:\Windows\Temp\TMP000000487674CAF70CFCA473
2	12-Apr-2015 11:24:25	Modified	0 Bytes	Administrators	C:\Windows\Temp
3	12-Apr-2015 11:24:25	Modified	512.00 KB	SYSTEM	C:\Windows\Temp\TMP000000487674CAF70CFCA473
4	12-Apr-2015 11:24:25	Modified	256.00 KB	SYSTEM	C:\Users\alex-s\ntuser.dat.LOG1
5	12-Apr-2015 11:24:25	Modified	3.50 MB	alex-s	C:\Users\alex-s\NTUSER.DAT
6	12-Apr-2015 11:24:25	Modified	3.50 MB	alex-s	C:\Users\alex-s\NTUSER.DAT
7	12-Apr-2015 11:24:25	Modified	3.50 MB	alex-s	C:\Users\alex-s\NTUSER.DAT
8	12-Apr-2015 11:24:26	Deleted	0 Bytes	---	C:\Windows\Temp\TMP000000487674CAF70CFCA473
9	12-Apr-2015 11:24:26	Modified	0 Bytes	Administrators	C:\Windows\Temp
10	12-Apr-2015 11:24:26	Modified	256.00 KB	SYSTEM	C:\Windows\System32\config\SOFTWARE.LOG1
11	12-Apr-2015 11:24:26	Modified	0 Bytes	Administrators	C:\Windows\System32\config
12	12-Apr-2015 11:24:26	Created	0 Bytes	SYSTEM	C:\Windows\Temp\TMP0000004908C5FD3C9FDA04A5
13	12-Apr-2015 11:24:26	Modified	0 Bytes	Administrators	C:\Windows\Temp
14	12-Apr-2015 11:24:26	Modified	512.00 KB	SYSTEM	C:\Windows\Temp\TMP0000004908C5FD3C9FDA04A5
15	12-Apr-2015 11:24:26	Modified	61.00 MB	SYSTEM	C:\Windows\System32\config\SOFTWARE
16	12-Apr-2015 11:24:26	Modified	61.00 MB	SYSTEM	C:\Windows\System32\config\SOFTWARE
17	12-Apr-2015 11:24:26	Modified	61.00 MB	SYSTEM	C:\Windows\System32\config\SOFTWARE
18	12-Apr-2015 11:24:26	Created	0 Bytes	Administrators	C:\Users\alex-s\AppData\Local\Temp\nsrF5B5.tmp
19	12-Apr-2015 11:24:26	Modified	0 Bytes	alex-s	C:\Users\alex-s\AppData\Local\Temp
20	12-Apr-2015 11:24:26	Deleted	0 Bytes	---	C:\Users\alex-s\AppData\Local\Temp\nsrF5B5.tmp
21	12-Apr-2015 11:24:26	Modified	0 Bytes	alex-s	C:\Users\alex-s\AppData\Local\Temp

3.8 Exporting Reports to an SQL Database

DiskPulse Ultimate and DiskPulse Server provide the ability to submit disk change monitoring reports into a centralized SQL database through the ODBC database interface. Reports may be submitted to an SQL database using the main GUI application or the command line utility, which may be used to perform disk monitoring operations on multiple servers or desktop computers and submit all reports to a centralized SQL database.



The report database dialog displays reports that were submitted to the database and allows one to search reports by the report title, host name, date or directories that were monitored. For each report in the database, DiskPulse displays the report date, time, host name, directories that were monitored, the amount of changes and storage space the report refers to and the report title. In order to open a report, just click on the report item in the report database dialog.

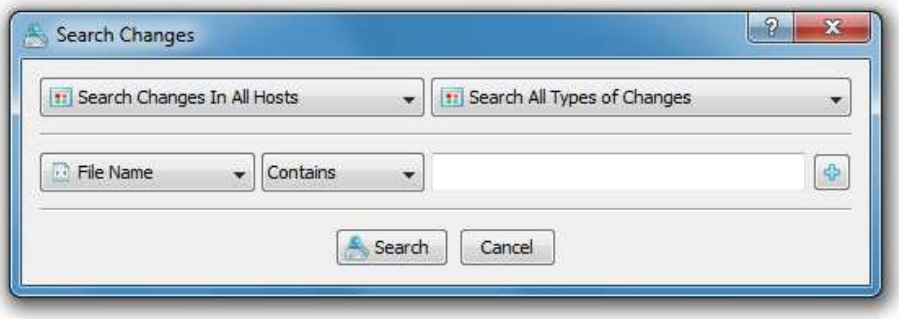

Report Database
Search by Title
Search Reports By Title
Date Time Host Inputs Changes Space Title
09/Aug/2010 17:25:16 Vista64 C:\ 2981 229.95 MB System Disk
09/Aug/2010 17:20:42 srv2003 C:\ 359 120.92 MB Microsoft SQL Ser...
09/Aug/2010 17:17:12 xp64 C:\ 4263 246.67 MB E-Mail Server
09/Aug/2010 16:58:07 SRV2008 C:\ 1148 495.50 MB FlexTk DB Server
09/Aug/2010 16:30:49 xp64 C:\ 2425 197.76 MB E-Mail Server
09/Aug/2010 16:28:47 xp32 C:\ 1628 124.35 MB System Disk
09/Aug/2010 16:22:54 srv2003 C:\ 831 102.20 MB Microsoft SQL Ser...
09/Aug/2010 15:26:47 xp32 C:\ 1529 109.01 MB System Disk
Add
Open
Delete
Backup
Restore
Close

In order to connect DiskPulse to an SQL database, the user is required to define an ODBC data source in the computer where DiskPulse is installed on and to specify the ODBC data source in the DiskPulse options dialog. Open the options dialog, select the 'Database' tab, enable the ODBC interface and specify a valid user name and password to connect DiskPulse to an SQL database.

In order to export a report to an SQL database, press the 'Save' button on the results dialog and select the 'SQL Database' format. In addition, the user is provided with the ability to use the command line utility, which is available in DiskPulse Ultimate and DiskPulse Server, to export reports to an SQL database.

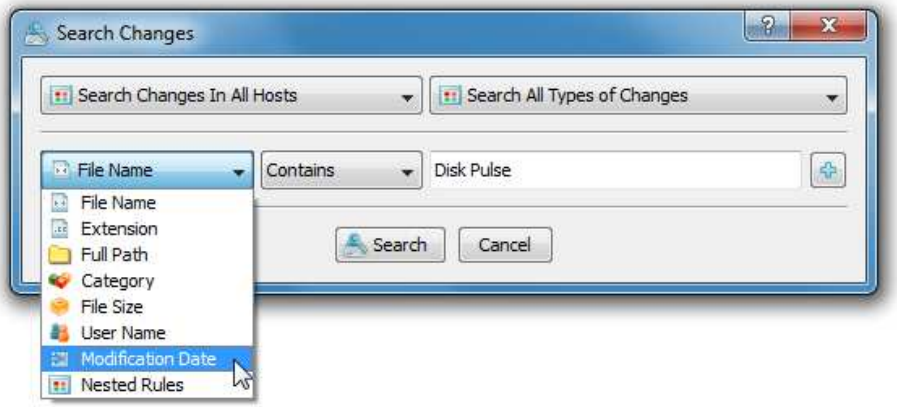
3.9 Searching File System Changes

DiskPulse allows one to search file system changes by the file name, category, modification date, file owner, file size, etc. in all disk change monitoring reports stored in an SQL database. In order to search file system changes in DiskPulse Ultimate or DiskPulse Server, open the database dialog and press the 'Search' button. In order to search file system changes in the reports database, press the 'Search' button located on the main toolbar.

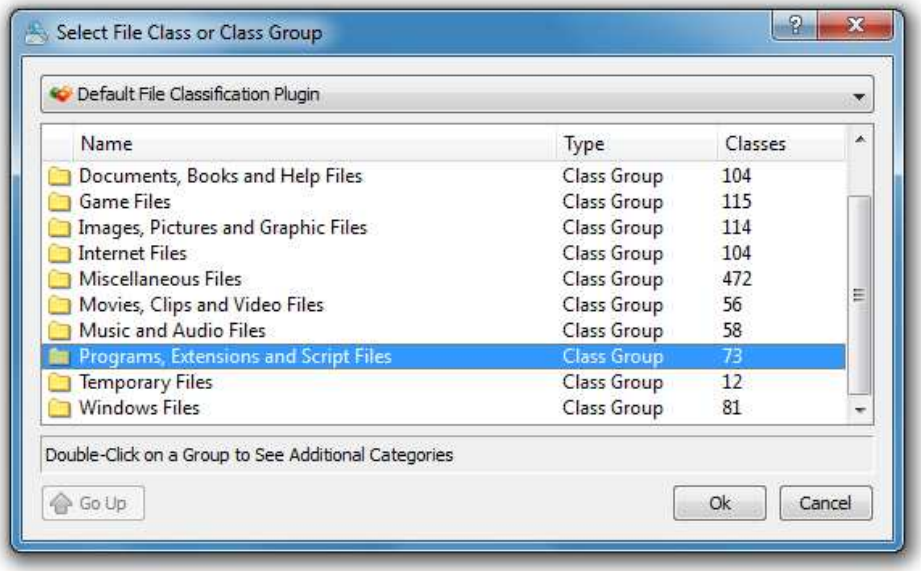


The host selector, located in the top-left corner of the search dialog, provides the ability to search changes in disk change monitoring reports submitted from all hosts or to select a specific host name to search for. The change type selector, located in the top-right corner of the search dialog, allows one to search for all types of file system changes or to select a specific change type such as: created files, modified files, renamed files or deleted files.

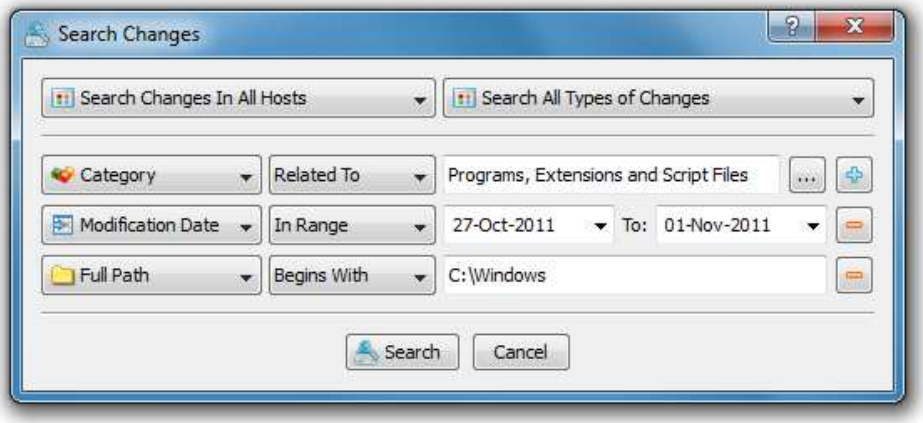
DiskPulse is capable of searching file system changes by one or more search rules which may be configured to find changes by the file name, extension, location, category, file size, file owner and modification date. Also, advanced users are provided with the ability to create hierarchical search rules with logical operators allowing one to find very specific changes.



For example, in order to search for all changed programs, executable files and DLL libraries, select the 'Category' file search rule and press the '...' button to browse for available file categories.



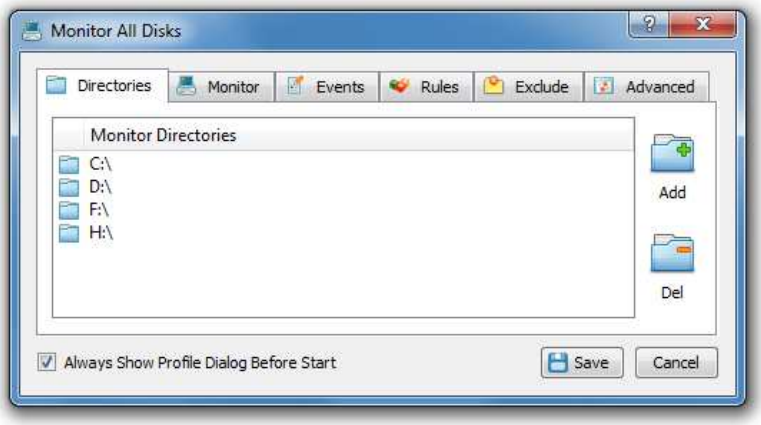
On the 'Categories' dialog, select the 'Programs, Extensions and Script Files' file category and press the 'Ok' button. If required, add a date range rule to find changes that occurred during a specific time interval or a location rule to find changes in a specific location such as the Windows system directory, etc.



Once finished adding search rules, press the 'Search' button and wait for the search operation to complete. Search results are displayed in the standard disk change monitoring results window allowing one to categorize and filter results, save HTML, text, Excel CSV or XML reports and generate pie and/or bars charts.

3.10 Monitoring Multiple Directories

DiskPulse is capable of monitoring multiple disks or directories. In order to monitor multiple directories, press the 'Manage Profile' button, which is located on the right side of the profile selector combo box and specify all the disks or directories that should be monitored.



All the specified disks and/or directories, including all subdirectories, will be monitored simultaneously and all file system changes will be reported in a single, interleaved view. Users requiring separate change lists for multiple disks or directories may start multiple instances of the DiskPulse GUI application and select a different monitoring profile in each of them.

3.11 Monitoring Specific File Types

DiskPulse Pro provides power computer users with the ability to monitor specific file types according to the specified file matching rules. For example, the user may specify to monitor changes in program files and DLL libraries located on the system disk.

In order to add one or more file matching rules, open the profile dialog, select the 'Rules' tab and press the 'Add' button. On the 'Rules' dialog select an appropriate rule type and specify all the required parameters. During the disk monitoring process, DiskPulse Pro will monitor all the input directories and apply the specified file matching rules to all changed files. Files not matching the specified rules will be skipped and the results view will contain user-selected files only.

3.12 Excluding Directories from the Monitoring Process

DiskPulse provides the ability to exclude one or more directories from the disk change monitoring process. In order to configure exclude directories for a disk change monitoring operation, open the monitoring profile dialog, select the 'Exclude' tab and add one or more directories to exclude.

In the simplest case, just add a full directory path to exclude from the disk change monitoring process. In addition, advanced users are provided with a number of exclude directories macro commands allowing one to exclude multiple directories using a single macro command.

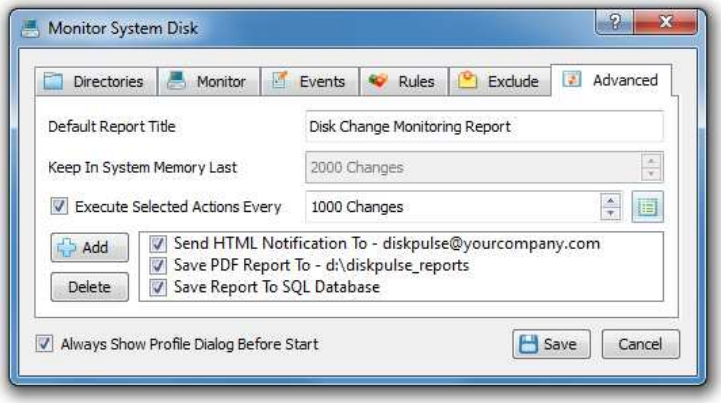
DiskPulse provides the following exclude directories macro commands:

- **$BEGINS <Text String>** - this macro command excludes all changes detected in directories beginning with the specified text string.
- **$CONTAINS <Text String>** - this macro command excludes all changes detected in directories containing the specified text string.
- **$ENDS <Text String>** - this macro command excludes all changes detected in directories ending with the specified text string.
- **$REGEX <Regular Expression>** - this macro command excludes all changes detected in directories matching the specified regular expression.

For example, the exclude macro command '$CONTAINS Temporary Files' will exclude all changes detected in directories with 'Temporary Files' at any place in the full directory path and the exclude macro command '$REGEX \.(TMP|TEMP)$' will exclude changes detected in directories ending with '.TMP' or '.TEMP'.

3.13 Sending E-Mail Notifications

Sometimes, it may be required to send E-Mail notifications about changes in critical system directories or files. In order to enable E-Mail notifications for a disk change monitoring command, open the monitoring command dialog, select the 'Advanced' tab, enable disk change monitoring actions and specify the number of file system changes that should trigger the specified notifications actions.

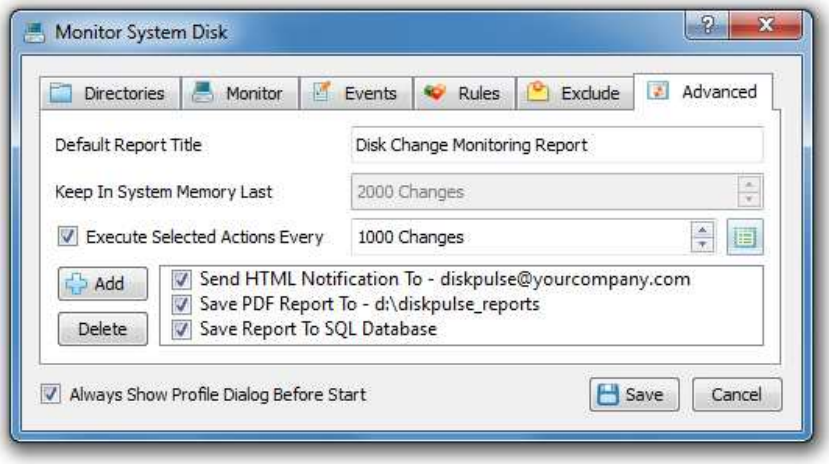


Now, press the 'Add' button and add an E-Mail notification. Every time the specified number of file system changes will be detected, DiskPulse will send an e-mail notification containing a list of detected file system changes to the specified e-mail address. After each e-mail notification, DiskPulse will clear the change list and restart the disk monitoring operation. In order to send multiple notifications to different E-Mail addresses, just add a number of notification actions with each one configured to send notifications to a different destination E-Mail address.

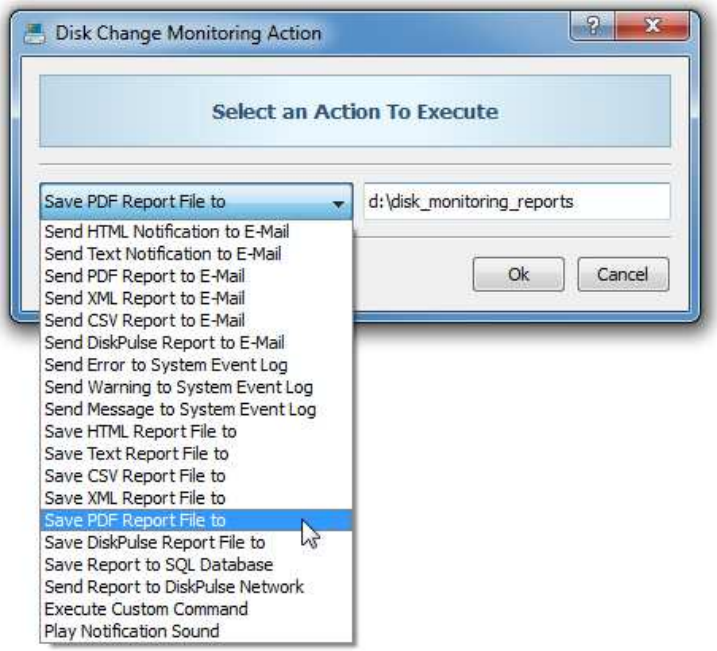
Finally, open the 'Options' dialog, select the 'E-Mail' tab, enable E-Mail notifications and specify an SMTP server and a valid e-mail account to sent notifications through. Once finished configuring the SMTP server, press the 'Verify E-Mail' button to verify the specified server host name and E-Mail account.

3.14 Generating Reports and Executing Custom Actions

DiskPulse Ultimate and DiskPulse Server provide power users and IT professionals with the ability to automatically generate reports, send messages to the system event log, save reports to an SQL database and/or execute custom commands, scripts and/or batch files when a disk monitoring operation detects a user-specified number of file system changes.



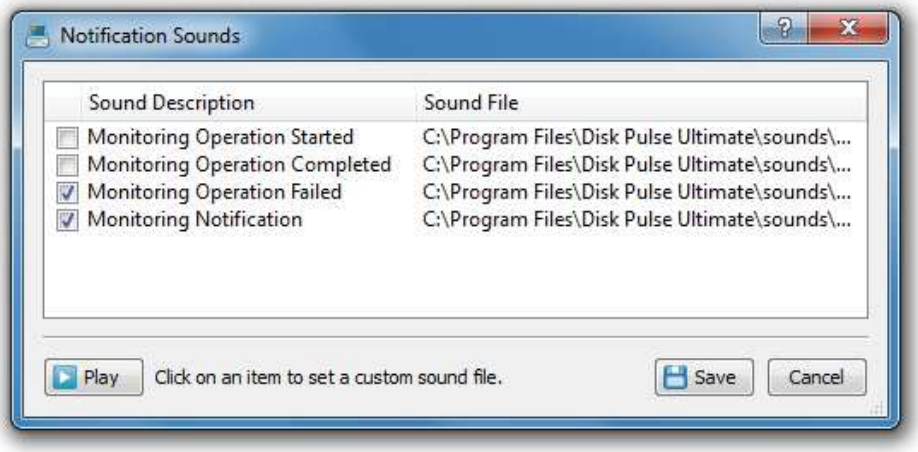
In order to configure one or more notification or report generation actions, open the disk change monitoring command dialog, select the 'Advanced' tab, enable disk monitoring actions, specify the number of changes that should trigger disk monitoring actions and add one or more actions configured to perform required operations.


Disk Change Monitoring Action
Select an Action To Execute
Save PDF Report File to
d:\disk_monitoring_reports
Ok
Cancel
Send HTML Notification to E-Mail
Send Text Notification to E-Mail
Send PDF Report to E-Mail
Send XML Report to E-Mail
Send CSV Report to E-Mail
Send DiskPulse Report to E-Mail
Send Error to System Event Log
Send Warning to System Event Log
Send Message to System Event Log
Save HTML Report File to
Save Text Report File to
Save CSV Report File to
Save XML Report File to
Save PDF Report File to
Save DiskPulse Report File to
Save Report to SQL Database
Send Report to DiskPulse Network
Execute Custom Command
Play Notification Sound

Every time the specified number of file system changes will be detected, DiskPulse will perform the specified operations. In order to allow a custom command to access the latest list of file system changes, add an automatic report generation action and specify a pre-defined report file name, which will be used by the subsequent command action to access the change list. After finishing execution of the specified disk monitoring actions, DiskPulse will clear the change list and restart the disk monitoring operation.

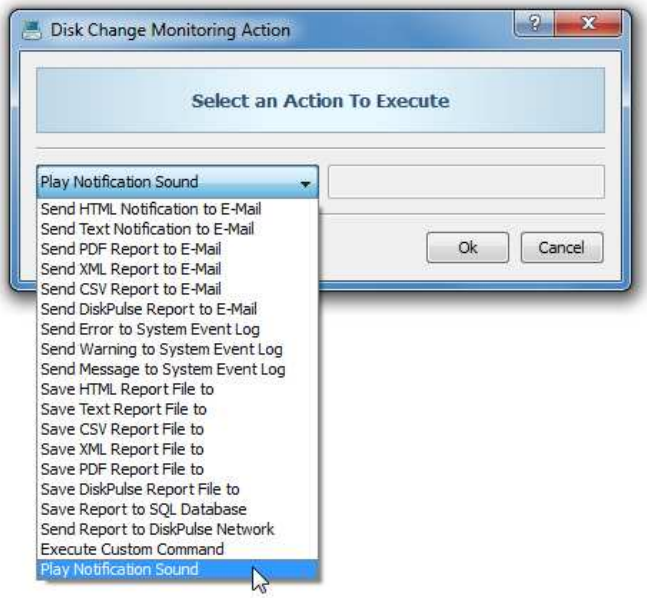
3.15 Sound Notifications

DiskPulse provides the ability to play notification sounds when a monitoring operation started, completed or failed. In addition, the user is provided with the ability to play a notification sound when a user-specific number of changes is detected. Finally, DiskPulse allows one to enable, disable or customize all types of sound notifications.



In order to open the 'Notification Sounds' dialog, select the menu 'Tools - Notification Sounds'. The 'Notification Sounds' dialog allows one to enable or disable specific notifications and/or set a custom sound file for a notification. In order to select a custom sound file for a notification, click on the notification item in the 'Notification Sounds' dialog and select a custom WAV file. In order to play the currently set notification sound file, select a notification item and press the 'Play' button.

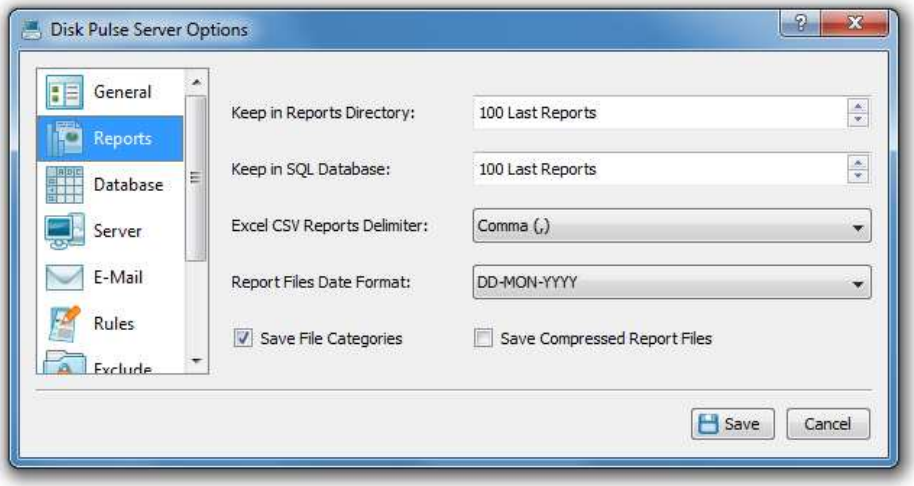
In addition, DiskPulse provides the ability to play a notification sound when a user-specific number of disk changes is detected. In order to add a sound notification action, open the disk monitoring profile dialog, select the 'Advanced' tab, enable disk change monitoring actions, press the 'Add' button and select the 'Play Notification Sound' action type.


Disk Change Monitoring Action
Select an Action To Execute
Play Notification Sound
Send HTML Notification to E-Mail
Send Text Notification to E-Mail
Send PDF Report to E-Mail
Send XML Report to E-Mail
Send CSV Report to E-Mail
Send DiskPulse Report to E-Mail
Send Error to System Event Log
Send Warning to System Event Log
Send Message to System Event Log
Save HTML Report File to
Save Text Report File to
Save CSV Report File to
Save XML Report File to
Save PDF Report File to
Save DiskPulse Report File to
Save Report to SQL Database
Send Report to DiskPulse Network
Execute Custom Command
Play Notification Sound
Ok
Cancel

The sound notification option is especially useful in conjunction with report generation actions allowing one to play sound notifications each time a new disk change monitoring report is generated.

3.16 Automatic Report Management

DiskPulse allows one to keep a user-specified number of reports in the reports directory or the reports SQL database while automatically deleting old reports and freeing up the disk space. These features are especially useful for fully automated disk change monitoring configurations when the user needs to keep a history of report files in a reports directory or a history of disk change monitoring reports in an SQL database.



By default, DiskPulse keeps all reports in the reports directory or the SQL database. In order to enable automatic report management, open the 'Options' dialog, select the 'Reports' tab and change the 'Report Files' or 'Report Database' options to appropriate values.

The '**Keep in Reports Directory**' option is applicable to HTML, text, Excel CSV, XML and DiskPulse native reports saved to a reports directory or to the user's home directory using automated report generation actions. After saving each new report, DiskPulse will check if there are too many reports of the same type (HTML, XML, CSV, etc.) in the reports directory and delete old reports according to the user-specified configuration.

The '**Keep in SQL Database**' option is applicable to disk change monitoring reports submitted to an SQL database using the DiskPulse GUI application, the DiskPulse command line utility or the DiskPulse server. After saving each new report to the database, DiskPulse will check if there are too many reports from the same host computer, monitoring the same set of disks or directories and delete old reports according to the user-specified configuration. For example, if two servers are submitting reports to the same SQL database, DiskPulse will keep in the database X last reports for each server.

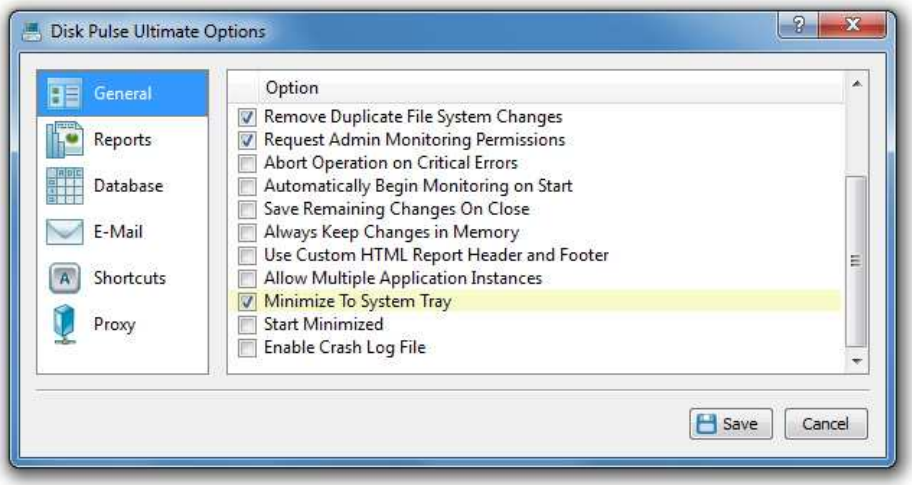
DiskPulse Enterprise, which is capable of receiving and analyzing reports received from multiple servers or desktop computers, manages reports in the database according to the same configuration options. For each server and each set of monitored disks or directories, DiskPulse Enterprise keeps a history of X last disk change monitoring reports according to the user-specified configuration.

The '**Save File Categories**' option allows one to enable/disable exporting of file categories to HTML, text, Excel CSV and XML reports. Second-level file categories are available when reports are saved using the DiskPulse GUI application manually. Automatically generated reports or reports saved using the DiskPulse command line utility always saved without file categories. When the 'File Categories' option is enabled, DiskPulse GUI application will save second-level file categories to HTML, text, Excel CSV and XML reports.

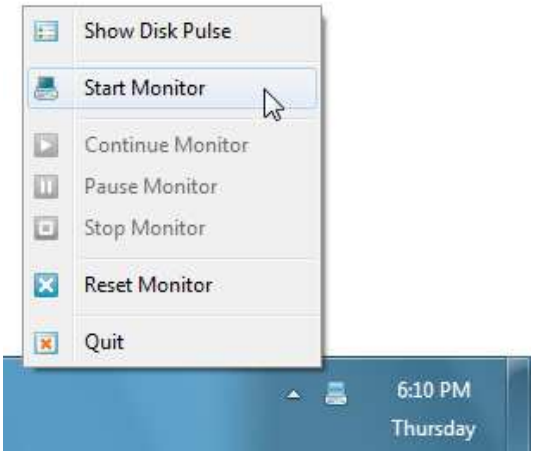
The '**Save Compressed Report Files**' option allows one to save automatically generated HTML, text, Excel CSV and XML reports as compressed archive files.

3.17 Using the System Tray Icon

DiskPulse Pro and DiskPulse Ultimate provide the ability to minimize the main GUI application to the system tray while allowing one to control the disk monitoring process using the system tray icon's context menu.



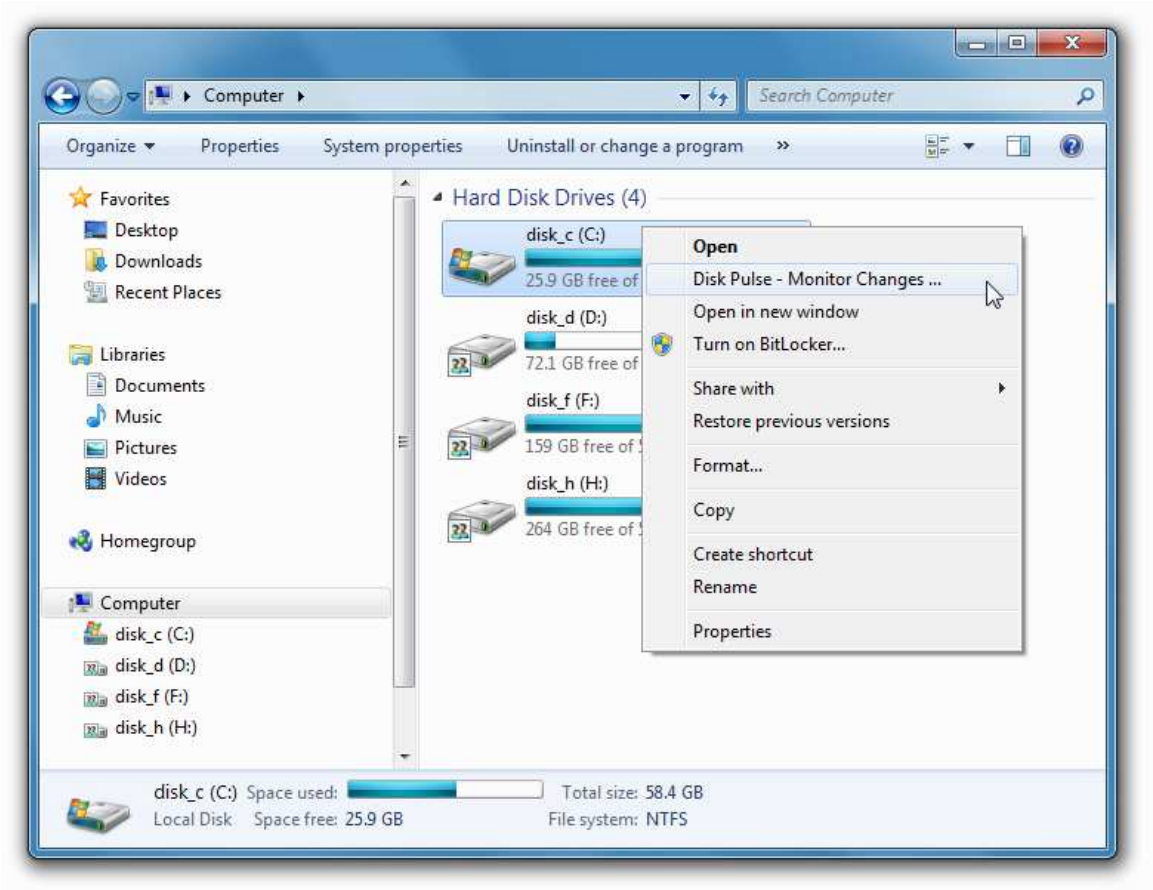
In order to enable the system tray icon, open the advanced options dialog and select the 'Minimize to System Tray' option. With this option enabled, the DiskPulse main GUI application will minimize itself into the system tray and allow one to start, pause, continue and stop the disk monitoring process using the system tray icon's context menu.



A minimized application may be shown at any time by clicking on the system tray icon. Another option is to click the right mouse button over the system tray icon and to select the 'Show Disk Pulse' menu item.

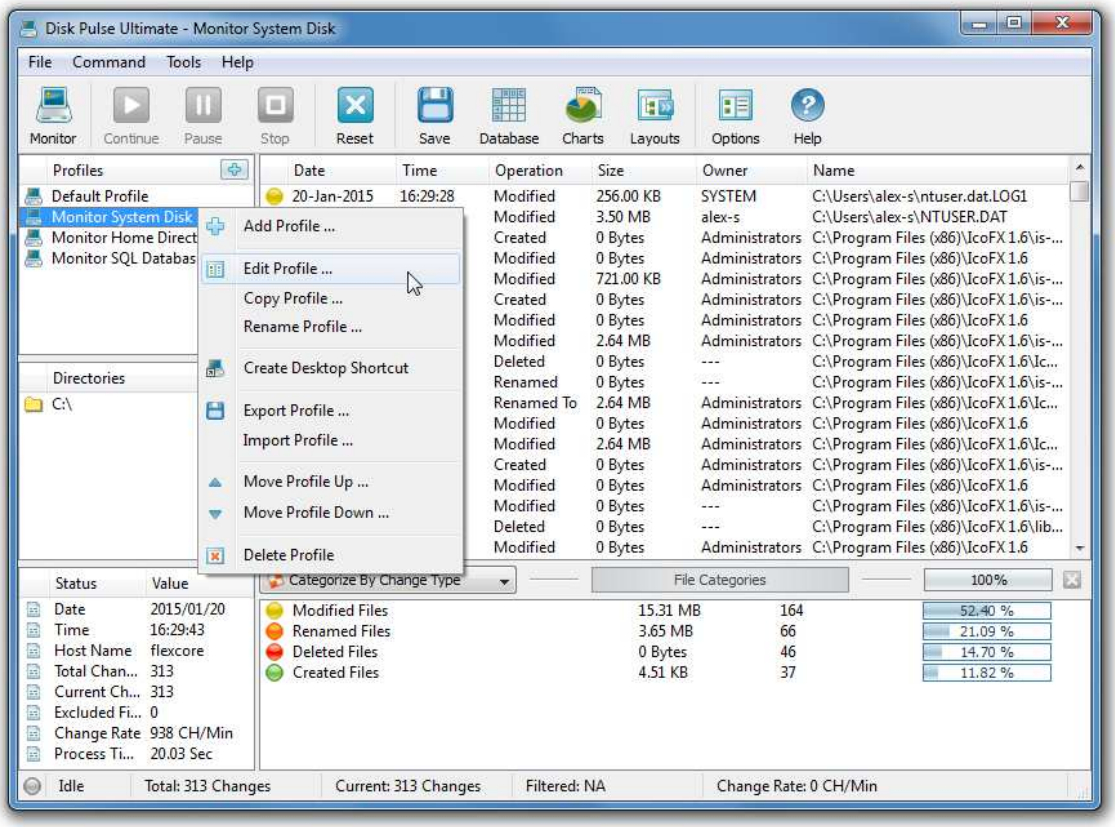
3.18 Windows Shell Integration

DiskPulse provides Windows shell integration capabilities allowing one to start disk change monitoring operations directly from the Windows Explorer application. In order to monitor one or more disks or directories, select the required disks or directories in the Windows Explorer application, press the right mouse button and select the 'DiskPulse - Monitor Changes' menu.



3.19 Managing Disk Monitoring Profiles

In order to simplify monitoring of multiple disks or directories using customized sets of parameters, DiskPulse provides the user with the ability save a number of profiles and specify pre-defined directories to process and configuration options for each of them. The simplest way to add a new disk change monitoring profile is to press the 'Add' button located in the top-right corner of the profiles view.

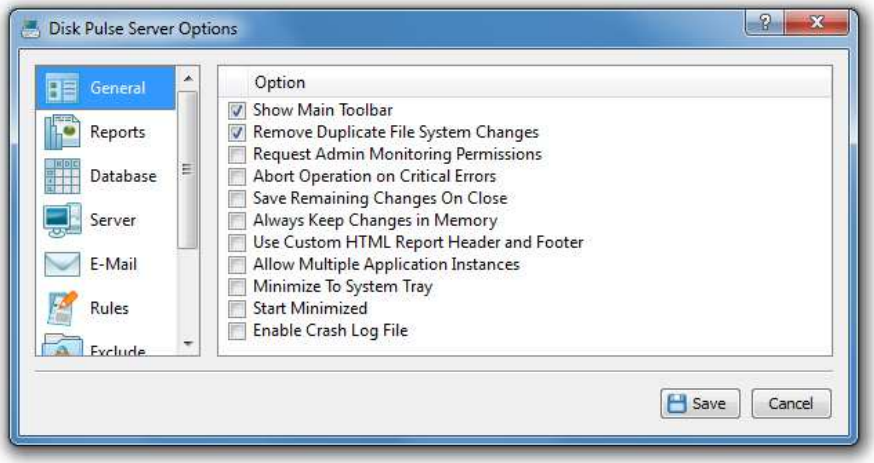


The DiskPulse GUI application allows one to add new profiles, edit profiles, export/import profiles and delete profiles. In addition, the user is profiled with the ability to associate a keyboard shortcut with each user-defined profile. Finally, DiskPulse allows one to create a direct desktop shortcut for each profile, which may be used to start monitoring operations in a single mouse click.

In order to edit a disk monitoring profile, select the profile item in the profiles view, press the right mouse button and select the 'Edit Profile' menu item. Select a profile item, press the right mouse button and select the 'Delete Profile' menu item to delete the profile from the product configuration. All the user-defined profiles listed in the profiles view are stored in the user-specific product configuration file, which may be exported for backup purposes and later used to restore the product configuration on the same or another computer.

3.20 Configuring DiskPulse Desktop Application

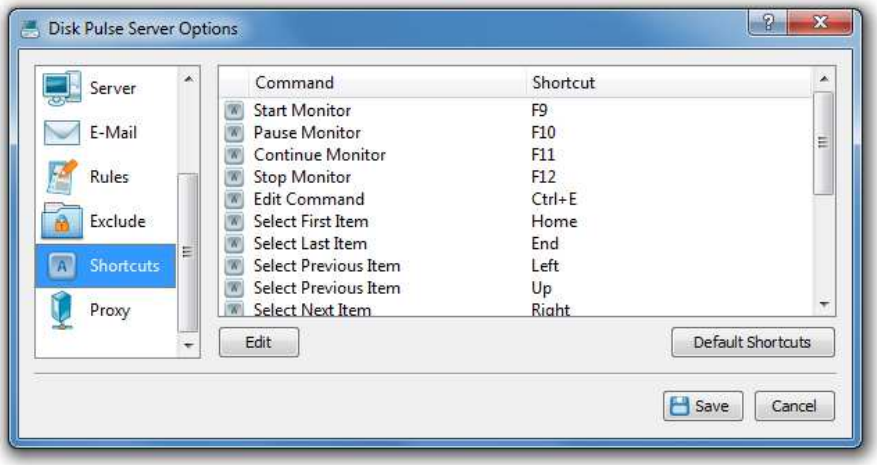
Select the 'Tools - Advanced Options' menu item to open the options dialog.



The '**General**' tab allows one to control the following options:

Show Main Toolbar - Enables/Disables the main toolbar
Always Show Profile Dialog Before Start - Instructs DiskPulse to show the profile dialog before starting the monitoring process.
Automatically Check For Product Updates - select this option to instruct DiskPulse to automatically check for available product updates.
Abort Operation On Critical Errors - by default DiskPulse is trying to process as many files as possible logging non-fatal errors in a process log. Select this option to instruct DiskPulse to abort operation when encountering a critical error.

The '**Shortcuts**' tab provides the user with the ability to customize keyboard shortcuts. Click on a shortcut item to edit the currently assigned key sequence. Press the 'Default Shortcuts' button to reset all keyboard shortcuts to default values.



The '**Proxy**' tab provides the user with the ability to configure the HTTP proxy settings. DiskPulse uses the HTTP protocol in order to inquire whether there is a new product version available on the web site. By default, DiskPulse detects proxy settings and connects to the Internet directly or through an HTTP proxy depending on the configuration of the host computer. Depending on a specific host and network configuration, the user is provided with the ability to connect to the Internet directly, trough automatic HTTP proxy discovery or manually by entering the HTTP proxy server name and port.

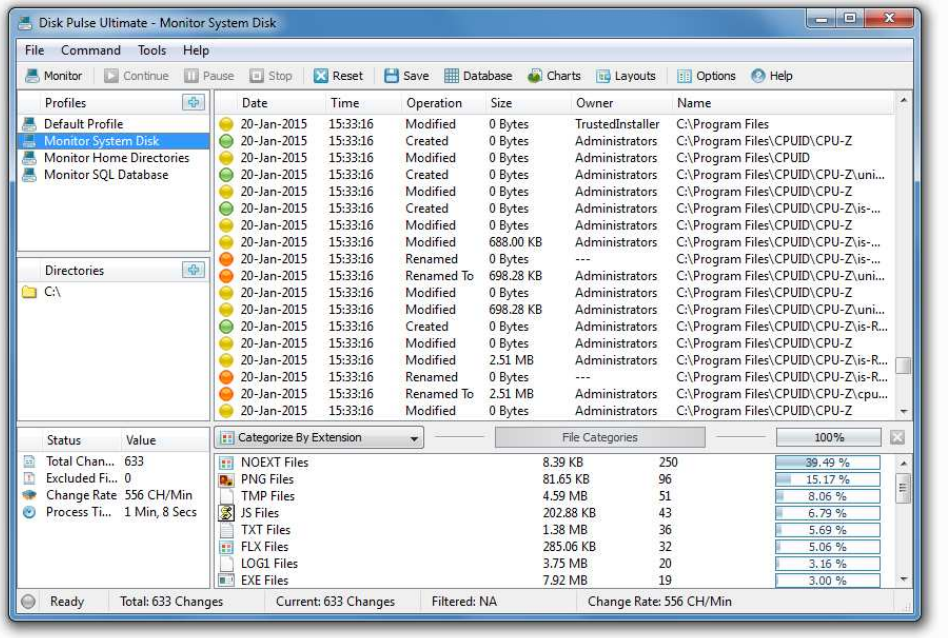
The '**E-Mail**' tab allows one to specify an SMTP e-mail server to be used to send e-mail notifications. Check the 'Enable E-Mail notifications' checkbox and specify a valid SMTP server name, an account name, a password and a source e-mail address to be used to send e-mail notifications through.

DiskPulse Ultimate and DiskPulse Server provide power computer users and IT professionals with the ability to export lists of detected file system changes to an SQL database via the ODBC interface.

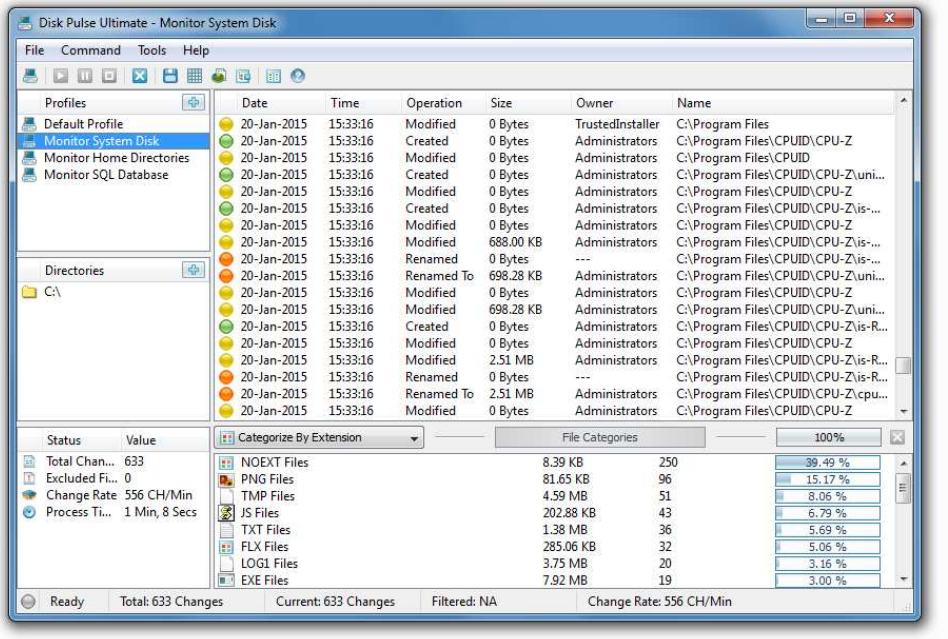
In order to enable the database export capability, open the 'Options' dialog, select the 'Database' tab and specify a valid ODBC data source name, user name and password.

3.21 DiskPulse GUI Layouts

In order to improve GUI usability, the DiskPulse main GUI application provides three user-selectable GUI layouts. Press the 'Layouts' button to switch the GUI application to the next GUI layout.



The first (default) GUI layout displays large toolbar buttons with descriptive text labels under each button and shows the directories entry and the profiles combo box under the main toolbar.



The second GUI layout displays small toolbar buttons with descriptive text labels beside each button and shows the directories entry and the profiles combo box under the main toolbar.

The third GUI layout displays small toolbar buttons without descriptive text labels and shows the directories entry and the profiles combo box as a single toolbar.

3.22 DiskPulse Command Line Utility

In addition to the DiskPulse GUI application, DiskPulse Ultimate and DiskPulse Server provide a command line utility allowing one to monitor disks or directories from batch files and shell scripts. In addition, the command line utility allows one to control one or more DiskPulse Servers locally or through the network. The DiskPulse command line utility is located in the **'<ProductDir>\bin'** directory.

Command Line Syntax:

diskpulse -execute <Profile Name>

This command executes the specified disk change monitoring operation.

diskpulse -monitor -dir <Directory 1> [... Directory X]

This command monitors the specified disks or directories.

Parameters:

-dir <Directory>

This parameter specifies a disk of directory to monitor. In order to ensure proper parsing of command line arguments, directories containing space characters should be double quoted.

Options:

-show_changes

This option shows detected file system changes on the standard output.

-save_html_report [File Name]
-save_text_report [File Name]
-save_csv_report [File Name]
-save_xml_report [File Name]
-save_pdf_report [File Name]

This option saves detected changes to the specified report file.

-save_to_database

This option exports detected file system changes to an SQL database using the ODBC data source configured in the options dialog.

-title <Report Title>

This option sets a custom report title.

-max_change <Maximum Number of Changes to Export>

This option sets the maximum number of last file system changes to export (default is 1,000).

-compress

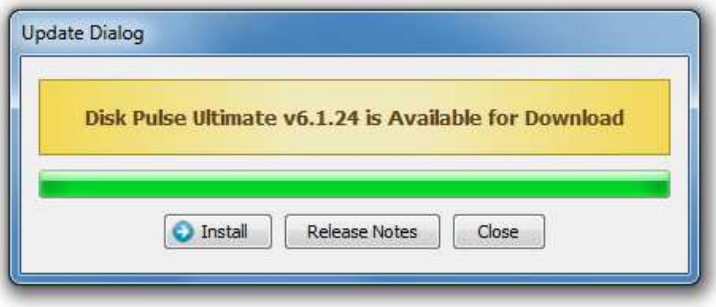
This option instructs to export a compressed report file.

-v - This command shows the product version.

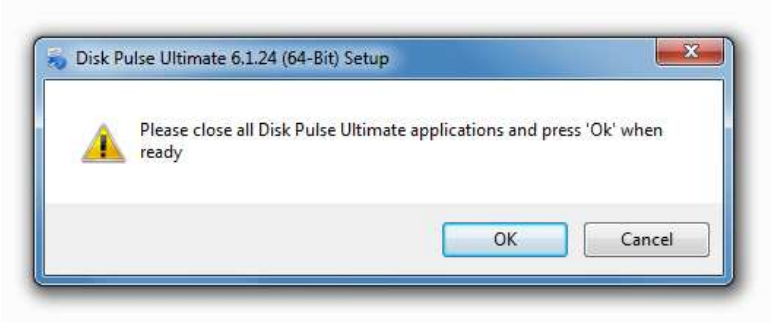
-help - This command shows the command line usage information.

3.23 Product Update Procedure

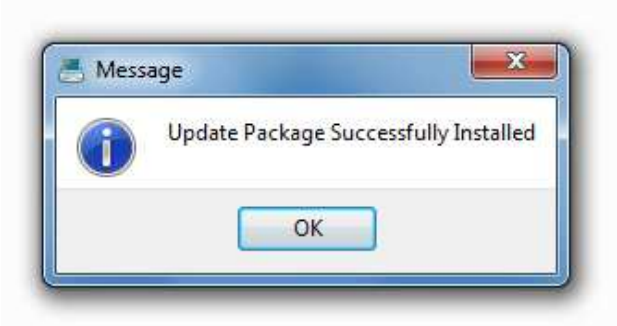
Almost every month, Flexense releases bug-fixes and product updates for the DiskPulse disk change monitor. These product updates are uploaded to the product web site and may be applied to any installed product version. Each time DiskPulse is started, the update manager checks if there is a new product version available on the web site and shows an 'Update' link in the right-most corner of the status bar.



If there is a new product version available, the update dialog will show the version of the new product update and two buttons: the 'Release Notes' button and the 'Install' button. Press the 'Release Notes' button to see more information about new features and bug-fixes provided by the new product version. Press the 'Install' button to download and install the new product version.


Disk Pulse Ultimate 6.1.24 (64-Bit) Setup
Please close all Disk Pulse Ultimate applications and press 'Ok' when ready
OK
Cancel

After pressing the 'Install' button, please wait while the update manager will download the new product version to the local disk. The update package will be downloaded to a temporary directory on the system drive and automatically deleted after the update manager will finish updating the product.



After download is completed, close all open DiskPulse applications and press the 'Ok' button when ready. If one or more DiskPulse applications will be open during the update, the operation will fail and the whole update process will need to be restarted from the beginning. After finishing the update process, DiskPulse will show a message box informing about the successfully completed operation.

3.24 Registering Desktop Product Version

DiskPulse licenses and discounted license packs may be purchased on the following page:

http://www.diskpulse.com/purchase.html

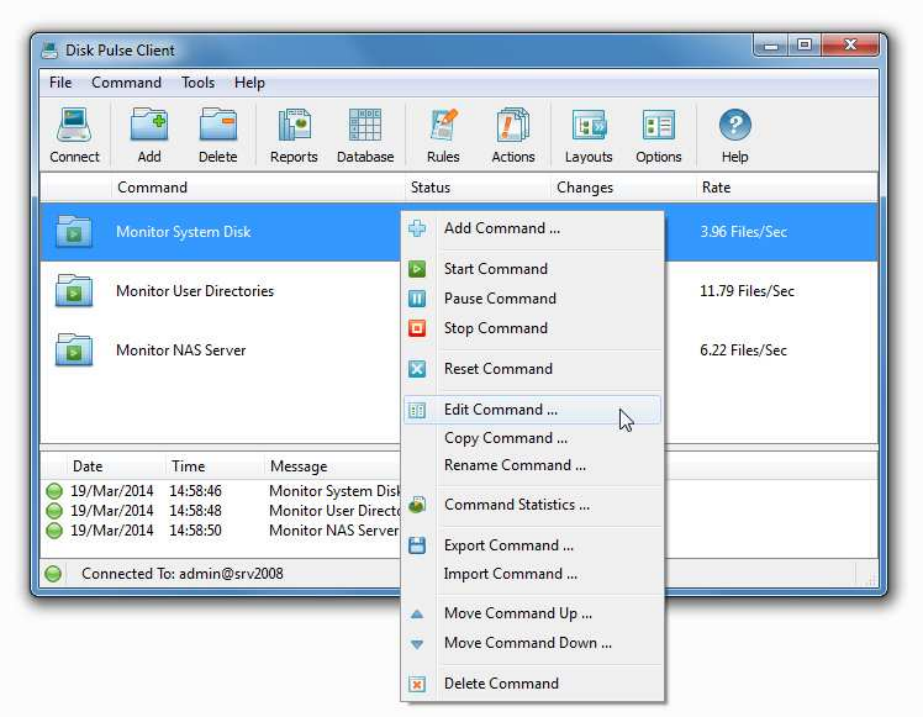
After finishing the purchase process, wait for the following two e-mail messages: the first one with a receipt for your payment and the second one with an unlock key. If you will not receive your unlock key within 12 hours, please check your spam box for e-mail messages originating from **support@flexense.com** and if it is nor here contact our support team.

If the computer is connected to the Internet, press the 'Register' button located in the top-right corner of the main DiskPulse GUI application, enter your name (or the company name), the provided unlock key and press the 'Register' button.

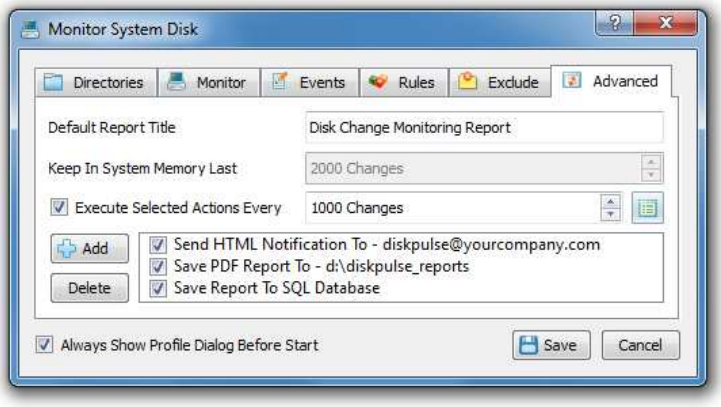
If the computer is not connected to the Internet, press the 'Manual Registration' button, enter your name (or the company name), the provided unlock key, export a product ID file and send the product ID file to **register@diskpulse.com**. Within a couple of hours you will receive an unlock file, which should be imported to finish the manual product registration procedure.

4 Using DiskPulse Server

DiskPulse Server is a server-based product version, which runs in the background as a service and allows one to perform multiple, parallel disk change monitoring operations, send E-Mail notifications, save various types of reports, export detected changes to a centralized SQL database, send error messages to the system event log and/or execute custom user commands when a user-specified number of changes detected.



DiskPulse Server may be controlled using a full-scale client GUI application or a command line utility locally or through the network. The DiskPulse client GUI application is very similar to the desktop product version, but provides the ability to configure multiple, parallel disk change monitoring operations and adds advanced statistics and history trend analysis capabilities.



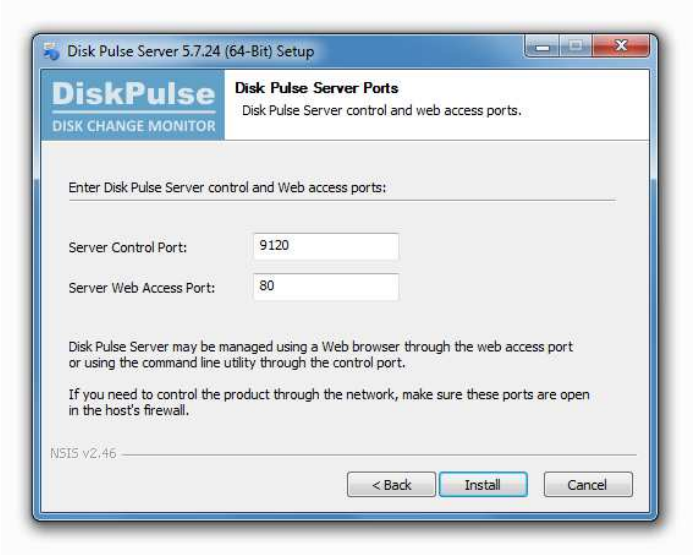
DiskPulse Server is especially designed to run on production servers using a very small amount of system memory and CPU resources in order to minimize the potential impact on running applications. For mission-critical servers, DiskPulse provides the ability to completely offload disk change monitoring reports management and analysis to a centralized DiskPulse database server, which can receive reports from multiple production servers, analyze detected changes using user-specified rules and policies, send notifications and/or save reports when critical changes are detected.

4.1 Installing DiskPulse Server

DiskPulse Server is especially designed to be as simple as possible. The product does not require any third-party software applications and may be installed and configured within a couple of minutes. A fully functional 30-days trial version of DiskPulse Server may be downloaded from the following page: http://www.diskpulse.com/downloads.html.

Disk Pulse Server 5.7.24 (64-Bit) Setup
DiskPulse
DISK CHANGE MONITOR
Welcome to the Disk Pulse Server 5.7.24 (64-Bit) Setup Wizard
This wizard will guide you through the installation of Disk Pulse Server 5.7.24 (64-Bit).
It is recommended that you close all other applications before starting Setup. This will make it possible to update relevant system files without having to reboot your computer.
Click Next to continue.
© 2007-2013 Flexense Ltd.
Next >
Cancel

The installation package is very small, 5MB - 6MB depending on the target operating system, and the product requires just 20MB of the free disk space on the target server. In order to install DiskPulse Server, start the setup program, select a destination directory and press the 'Next' button.

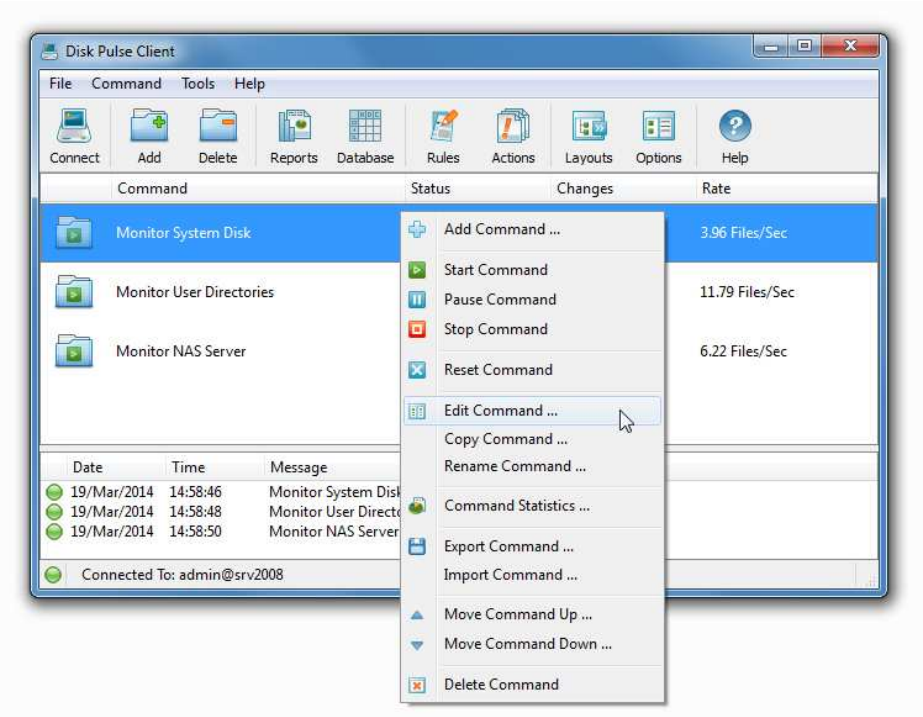

Disk Pulse Server 5.7.24 (64-Bit) Setup
DiskPulse
DISK CHANGE MONITOR
Disk Pulse Server Ports
Disk Pulse Server control and web access ports.
Enter Disk Pulse Server control and Web access ports:
Server Control Port:
9120
Server Web Access Port:
80
Disk Pulse Server may be managed using a Web browser through the web access port or using the command line utility through the control port.
If you need to control the product through the network, make sure these ports are open in the host's firewall.
NSIS v2.46
< Back
Install
Cancel

Optionally, enter custom server control and/or web access ports. The server control port is used by the DiskPulse client GUI application and the command line utility to connect to DiskPulse Server. The web access port is the port for the web-based management interface allowing one to control DiskPulse Server using a standard web browser from any computer on the network. If DiskPulse Server should be controlled remotely through the network, make sure one or both of these ports are open in the server's firewall. In order to perform a silent product installation procedure, download the latest product version, open the command prompt window and type the following command:

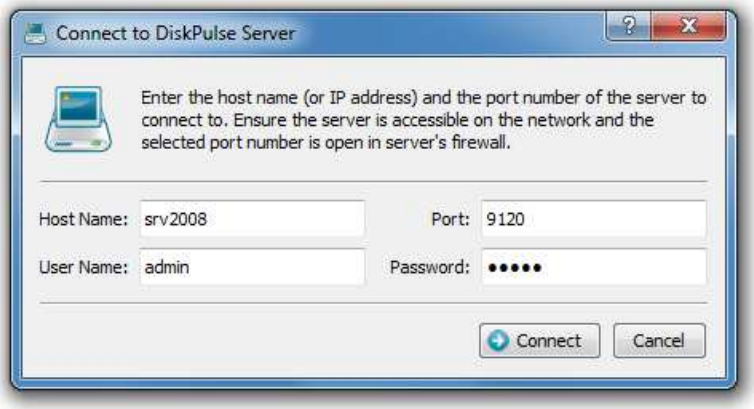
diskpulsesrv_setup_vX.Y.Z.exe /S

4.2 Using DiskPulse Server client GUI application

The DiskPulse client GUI application connects to DiskPulse Server locally or through the network and allows one to setup disk change monitoring operations, configure reports, E-Mail notifications and/or custom user commands to be executed when a user-specified number of changes detected.

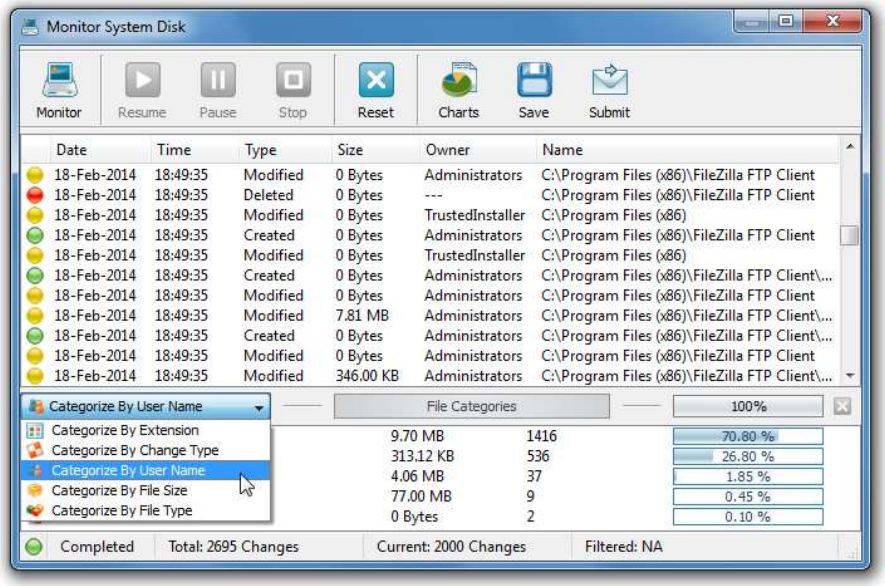


The client GUI application provides an easy-to-use interface, which is very similar to the DiskPulse desktop GUI application. The user is provided with the ability to review and analyze detected file system changes, save report files and/or export disk change monitoring reports to a centralized SQL database through the ODBC interface.

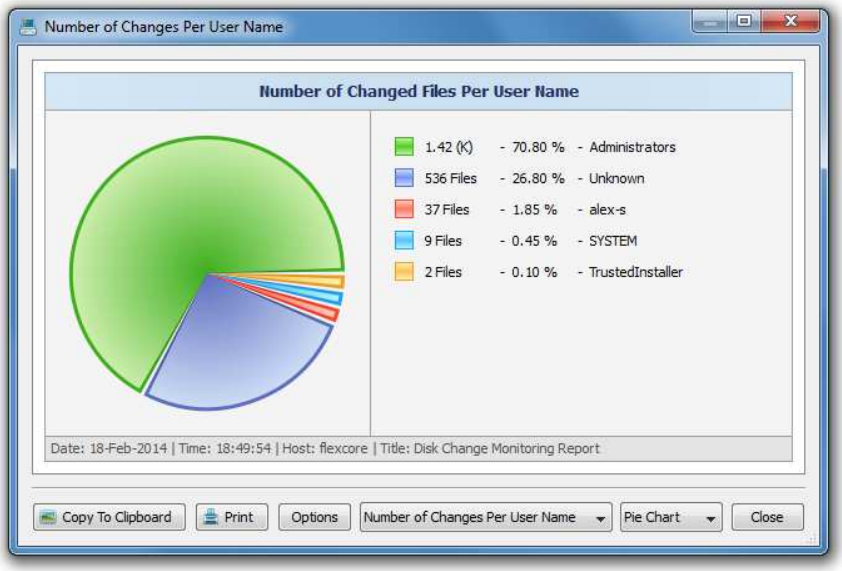

Connect to DiskPulse Server
Enter the host name (or IP address) and the port number of the server to connect to. Ensure the server is accessible on the network and the selected port number is open in server's firewall.
Host Name: srv2008
Port: 9120
User Name: admin
Password: •••••
Connect
Cancel

In order to connect to a DiskPulse server, open the DiskPulse client GUI application, press the 'Connect' button located on the main toolbar, enter the host name (or an IP address) of the server to connect to, enter DiskPulse user name and password (default is **admin/admin**) and press the 'Connect' button. By default, DiskPulse client GUI application connects to DiskPulse Server trough the TCP/IP port 9120. If the default DiskPulse server control port is used by another software product or system service, open the server 'Options' dialog, select the 'Server' tab and change the DiskPulse server control port. In order to be able to connect to the server through the network, make sure that the port is open in the host's firewall.

By default, in order to ensure all disk change monitoring operations are automatically started when the computer starts, DiskPulse Server enables the auto-start mode for all disk change monitoring operations. In order to manually start one or more disk change monitoring commands using the client GUI application, connect to the DiskPulse Server, select the required disk change monitoring commands in the commands view, press the right mouse button and select the 'Start Command' menu item.


Monitor System Disk
Monitor
Resume
Pause
Stop
Reset
Charts
Save
Submit
Date Time Type Size Owner Name
18-Feb-2014 18:49:35 Modified 0 Bytes Administrators C:\Program Files (x86)\FileZilla FTP Client
18-Feb-2014 18:49:35 Deleted 0 Bytes --- C:\Program Files (x86)\FileZilla FTP Client
18-Feb-2014 18:49:35 Modified 0 Bytes TrustedInstaller C:\Program Files (x86)
18-Feb-2014 18:49:35 Created 0 Bytes Administrators C:\Program Files (x86)\FileZilla FTP Client
18-Feb-2014 18:49:35 Modified 0 Bytes TrustedInstaller C:\Program Files (x86)
18-Feb-2014 18:49:35 Created 0 Bytes Administrators C:\Program Files (x86)\FileZilla FTP Client\...
18-Feb-2014 18:49:35 Modified 0 Bytes Administrators C:\Program Files (x86)\FileZilla FTP Client
18-Feb-2014 18:49:35 Modified 7.81 MB Administrators C:\Program Files (x86)\FileZilla FTP Client\...
18-Feb-2014 18:49:35 Created 0 Bytes Administrators C:\Program Files (x86)\FileZilla FTP Client\...
18-Feb-2014 18:49:35 Modified 0 Bytes Administrators C:\Program Files (x86)\FileZilla FTP Client
18-Feb-2014 18:49:35 Modified 346.00 KB Administrators C:\Program Files (x86)\FileZilla FTP Client\...
Categorize By User Name
File Categories
100%
Categorize By Extension
Categorize By Change Type
Categorize By User Name
Categorize By File Size
Categorize By File Type
9.70 MB 1416 70.80 %
313.12 KB 536 26.80 %
4.06 MB 37 1.85 %
77.00 MB 9 0.45 %
0 Bytes 2 0.10 %
Completed
Total: 2695 Changes
Current: 2000 Changes
Filtered: NA

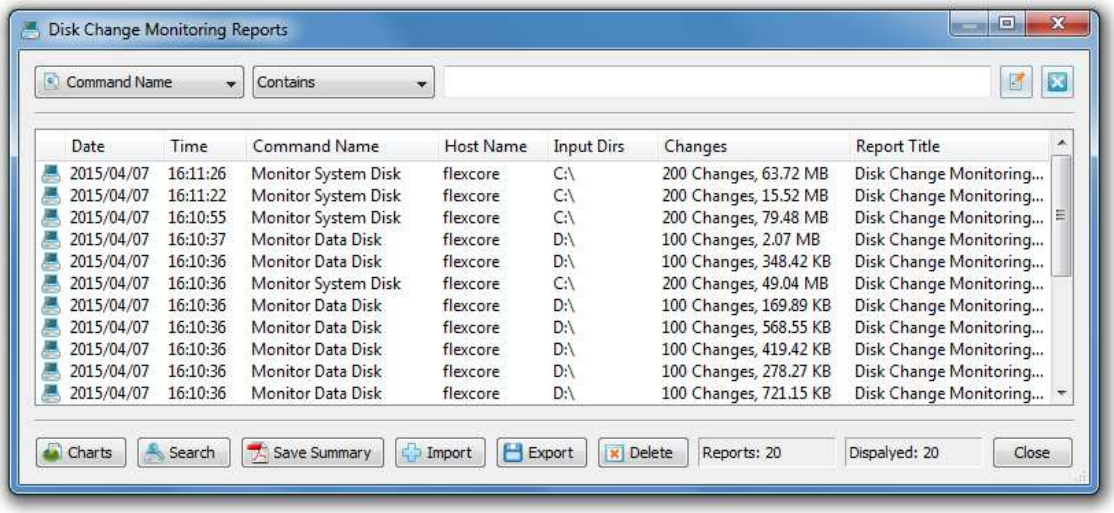
In order to review detected file system changes, just click on a disk change monitoring command item in the commands view. For each detected file system change, the monitoring results dialog shows the date, time, type of change, file size, file owner and the name of the changed file or directory. In addition, the bottom view shows categories of detected changes according to the currently selected file categorization mode.


Number of Changes Per User Name
Number of Changed Files Per User Name
1.42 (K) - 70.80 % - Administrators
536 Files - 26.80 % - Unknown
37 Files - 1.85 % - alex-s
9 Files - 0.45 % - SYSTEM
2 Files - 0.10 % - TrustedInstaller
Date: 18-Feb-2014 | Time: 18:49:54 | Host: flexcore | Title: Disk Change Monitoring Report
Copy To Clipboard
Print
Options
Number of Changes Per User Name
Pie Chart
Close

The monitor results dialog provides the ability to categorize and filter detected file system changes, save various types of disk change monitoring reports and generate pie charts showing the number of changes per category according to the currently selected file categorization mode.

4.3 Saving Reports to the DiskPulse Reports Database

DiskPulse Server includes a built-in reports database allowing one to keep a history of disk change monitoring reports, search changes in the reports database and generate summary disk change monitoring reports. In order to open the DiskPulse Server reports database, press the 'Reports' button located on the main toolbar.

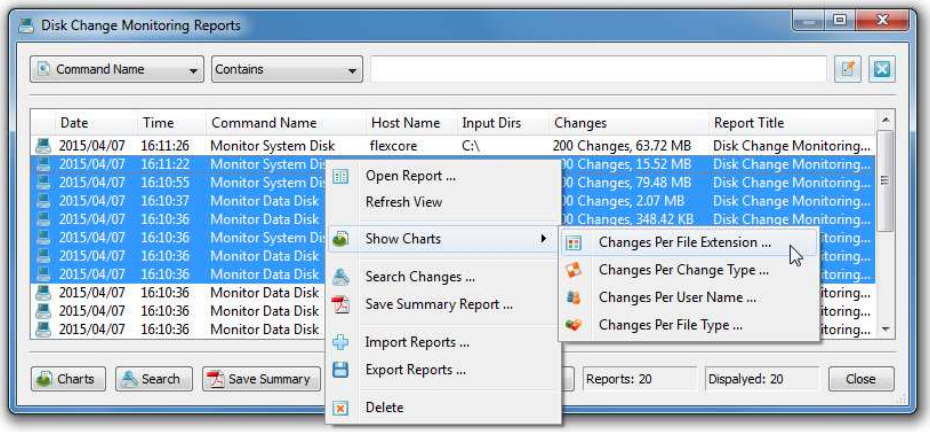

Disk Change Monitoring Reports
Command Name
Contains
Date Time Command Name Host Name Input Dirs Changes Report Title
2015/04/07 16:11:26 Monitor System Disk flexcore C:\ 200 Changes, 63.72 MB Disk Change Monitoring...
2015/04/07 16:11:22 Monitor System Disk flexcore C:\ 200 Changes, 15.52 MB Disk Change Monitoring...
2015/04/07 16:10:55 Monitor System Disk flexcore C:\ 200 Changes, 79.48 MB Disk Change Monitoring...
2015/04/07 16:10:37 Monitor Data Disk flexcore D:\ 100 Changes, 2.07 MB Disk Change Monitoring...
2015/04/07 16:10:36 Monitor Data Disk flexcore D:\ 100 Changes, 348.42 KB Disk Change Monitoring...
2015/04/07 16:10:36 Monitor System Disk flexcore C:\ 200 Changes, 49.04 MB Disk Change Monitoring...
2015/04/07 16:10:36 Monitor Data Disk flexcore D:\ 100 Changes, 169.89 KB Disk Change Monitoring...
2015/04/07 16:10:36 Monitor Data Disk flexcore D:\ 100 Changes, 568.55 KB Disk Change Monitoring...
2015/04/07 16:10:36 Monitor Data Disk flexcore D:\ 100 Changes, 419.42 KB Disk Change Monitoring...
2015/04/07 16:10:36 Monitor Data Disk flexcore D:\ 100 Changes, 278.27 KB Disk Change Monitoring...
2015/04/07 16:10:36 Monitor Data Disk flexcore D:\ 100 Changes, 721.15 KB Disk Change Monitoring...
Charts
Search
Save Summary
Import
Export
Delete
Reports: 20
Dispalyed: 20
Close

The DiskPulse reports dialog shows previously saved disk change monitoring reports and allows one to open reports, search specific file system changes in one or more disk change monitoring reports, save summary reports, export and import reports, delete reports, etc. In addition, the reports dialog provides the ability to filter reports by the disk change monitoring command name, monitored directories, report title and server host name.

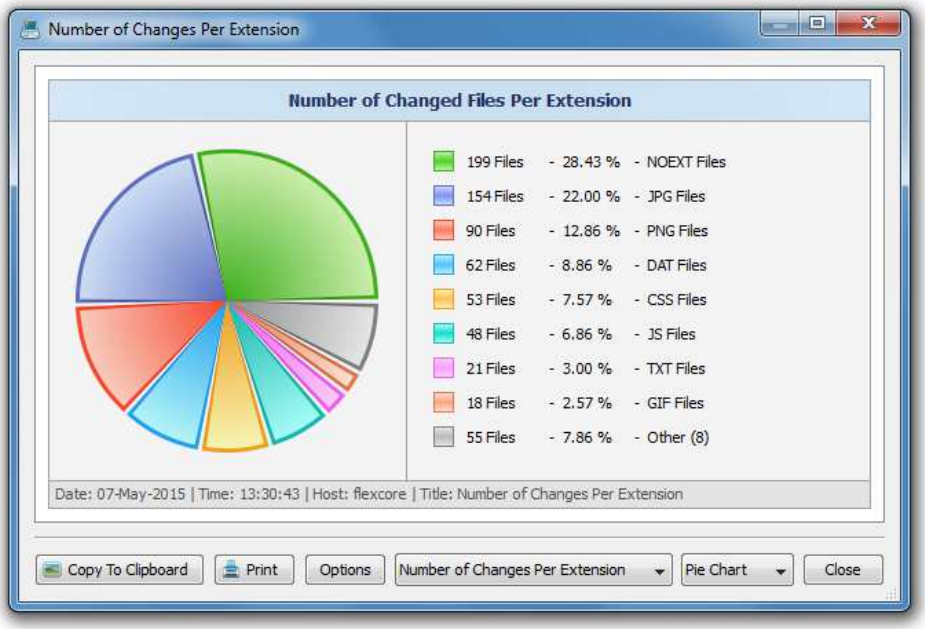
In order to automatically save disk change monitoring reports to the reports database, open the disk change monitoring command dialog, select the 'Advanced' tab, enable automated disk change monitoring actions and add an action to save a report to the DiskPulse reports database after every X changes. In addition, the user is provided with the ability to save disk change monitoring reports based on the disk change rate or after a user-specified period of time. In order to configure advanced disk change monitor actions trigger options, press the 'Actions Trigger Options' button.

4.4 Displaying Statistical Charts For Series of Reports

Disk change monitoring reports saved in the reports database may be searched, analyzed and exported to a number of standard formats such as HTML, PDF, text, Excel CSV and XML. In addition, the user is provided with the ability to analyze series of disk change monitoring reports and display pie charts or bars chars showing the number of changes per file extension, change type, user name or file category.



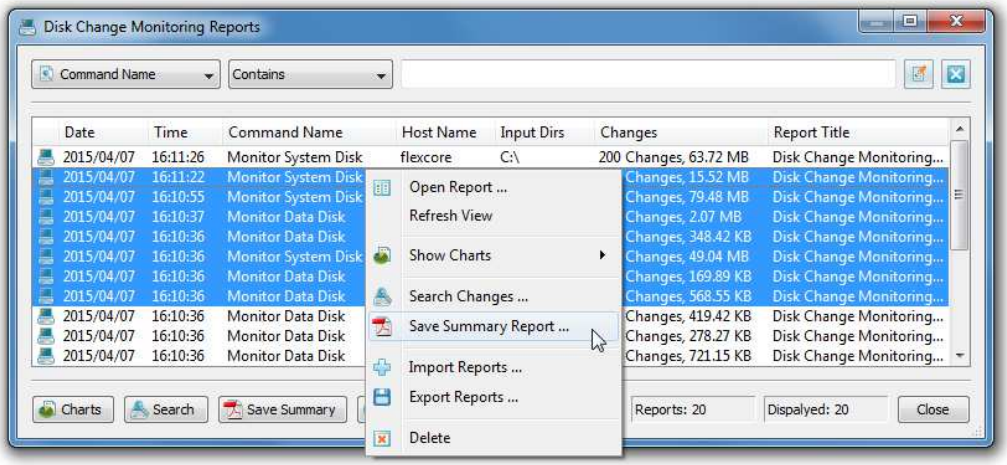
For example, in order to display a pie chart showing the number of changes per file extension in a number of disk change monitoring reports, open the 'Reports' dialog, select all the required disk change monitoring reports, press the right mouse button and select the 'Show Charts - Changes Per File Extension' menu item.


Number of Changes Per Extension
Number of Changed Files Per Extension
199 Files - 28.43 % - NOEXT Files
154 Files - 22.00 % - JPG Files
90 Files - 12.86 % - PNG Files
62 Files - 8.86 % - DAT Files
53 Files - 7.57 % - CSS Files
48 Files - 6.86 % - JS Files
21 Files - 3.00 % - TXT Files
18 Files - 2.57 % - GIF Files
55 Files - 7.86 % - Other (8)
Date: 07-May-2015 | Time: 13:30:43 | Host: flexcore | Title: Number of Changes Per Extension
Copy To Clipboard
Print
Options
Number of Changes Per Extension
Pie Chart
Close

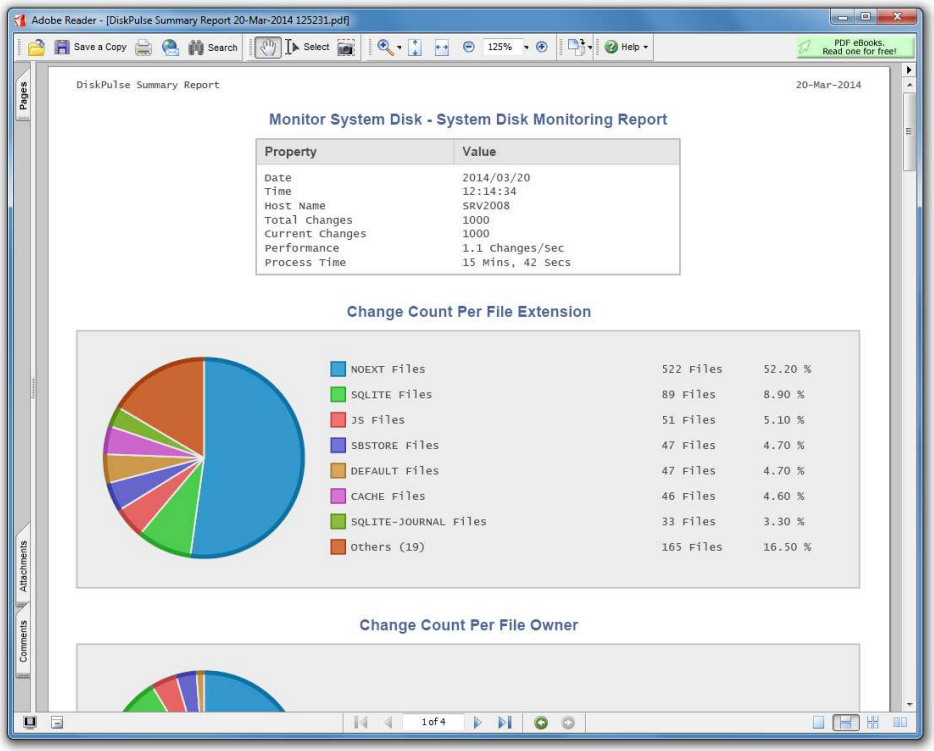
DiskPulse Server will analyze all the selected disk change monitoring reports and display a consolidated pie chart showing the number of file system changes per file extension. The charts dialog allows one to copy the chart image to the clipboard, print the chart image and edit various chart options. In the same way, the user can display pie charts or bars charts showing the number of changes per file category, user name and change type.

4.5 Saving Summary Disk Change Monitoring Reports

DiskPulse Server provides the ability to save a number of disk change monitoring reports to a consolidated graphical PDF summary report including various types of pie charts and disk change monitoring statistics. In order to save a summary report, press the 'Reports' dialog located on the main toolbar, select one or more disk change monitoring reports, press the right mouse button and select the 'Save Summary Report' menu item.


Disk Change Monitoring Reports
Command Name
Contains
Date
Time
Command Name
Host Name
Input Dirs
Changes
Report Title
2015/04/07 16:11:26 Monitor System Disk flexcore C:\ 200 Changes, 63.72 MB Disk Change Monitoring...
2015/04/07 16:11:22 Monitor System Disk Changes, 15.52 MB Disk Change Monitoring...
2015/04/07 16:10:55 Monitor System Disk Changes, 79.48 MB Disk Change Monitoring...
2015/04/07 16:10:37 Monitor Data Disk Changes, 2.07 MB Disk Change Monitoring...
2015/04/07 16:10:36 Monitor Data Disk Changes, 348.42 KB Disk Change Monitoring...
2015/04/07 16:10:36 Monitor System Disk Changes, 49.04 MB Disk Change Monitoring...
2015/04/07 16:10:36 Monitor Data Disk Changes, 169.89 KB Disk Change Monitoring...
2015/04/07 16:10:36 Monitor Data Disk Changes, 568.55 KB Disk Change Monitoring...
2015/04/07 16:10:36 Monitor Data Disk Changes, 419.42 KB Disk Change Monitoring...
2015/04/07 16:10:36 Monitor Data Disk Changes, 278.27 KB Disk Change Monitoring...
2015/04/07 16:10:36 Monitor Data Disk Changes, 721.15 KB Disk Change Monitoring...
Open Report ...
Refresh View
Show Charts
Search Changes ...
Save Summary Report ...
Import Reports ...
Export Reports ...
Delete
Charts
Search
Save Summary
Reports: 20
Dispalyed: 20
Close

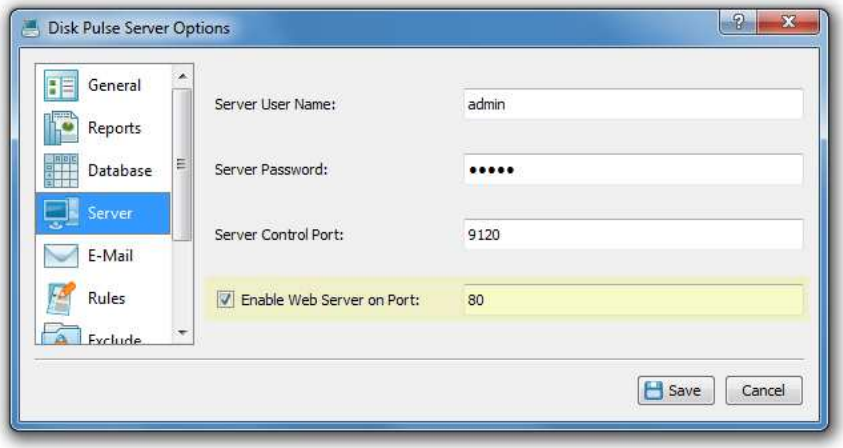
DiskPulse saves summary reports as graphical PDF reports including general information about each disk change monitoring report, a pie chart showing the number of changes per file extension, a pie chart showing the number of changes per file owner and a pie chart showing the number of changes per change type.


Adobe Reader - [DiskPulse Summary Report 20-Mar-2014 125231.pdf]
DiskPulse Summary Report
20-Mar-2014
Monitor System Disk - System Disk Monitoring Report
Property
Value
Date 2014/03/20
Time 12:14:34
Host Name SRV2008
Total changes 1000
Current Changes 1000
Performance 1.1 Changes/Sec
Process Time 15 Mins, 42 Secs
Change Count Per File Extension
NOEXT Files 522 Files 52.20 %
SQLITE Files 89 Files 8.90 %
JS Files 51 Files 5.10 %
SBSTORE Files 47 Files 4.70 %
DEFAULT Files 47 Files 4.70 %
CACHE Files 46 Files 4.60 %
SQLITE-JOURNAL Files 33 Files 3.30 %
Others (19) 165 Files 16.50 %
Change Count Per File Owner

In addition, DiskPulse Enterprise provides the ability to collect disk change monitoring reports from multiple production servers to a centralized reports database and then generate summary reports containing information about all monitored servers.

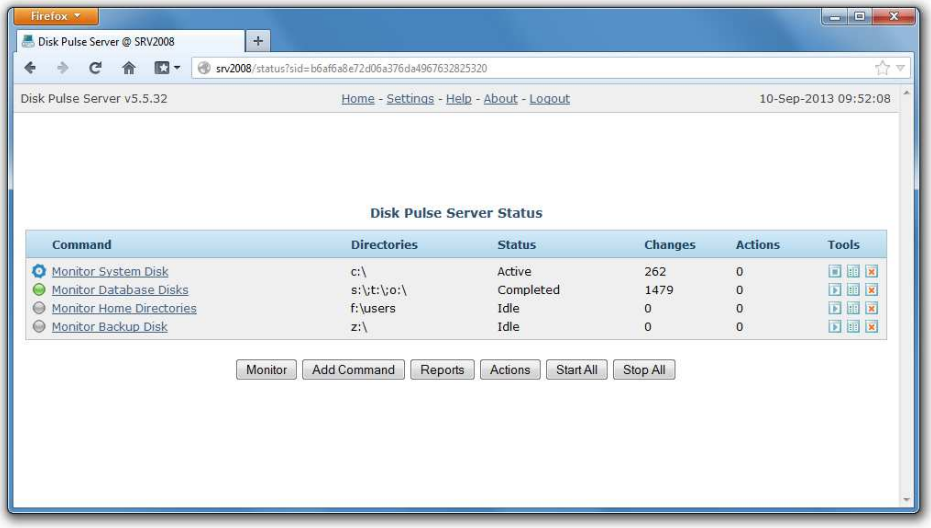
4.6 Web-Based Management Interface

DiskPulse Enterprise provides a complete web-based management interface allowing one to control, configure and manage one or more DiskPulse Servers using a regular web browser from any computer on the network.



In order to enable the web-based management interface for a DiskPulse Enterprise installation, connect to the server using the DiskPulse client GUI application, open the 'Options' dialog, select the 'Server' tab, enable the 'Web Server' option and press the 'Save' button.

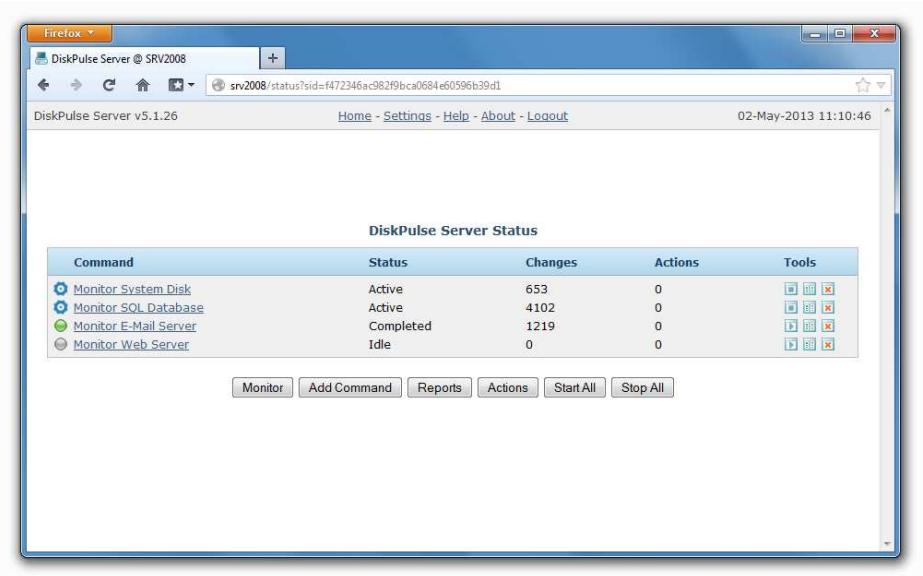
By default, the DiskPulse web server uses the TCP/IP port 80, which is a standard port used by web browsers to connect to web servers. Sometimes, the standard web access port may be in use by other applications or services installed on the server, preventing the DiskPulse web interface to operate properly. In this case, the user needs to change the web access port number and then, in order to connect to the custom port, type in the web browser address bar: http://server-name:port-number.



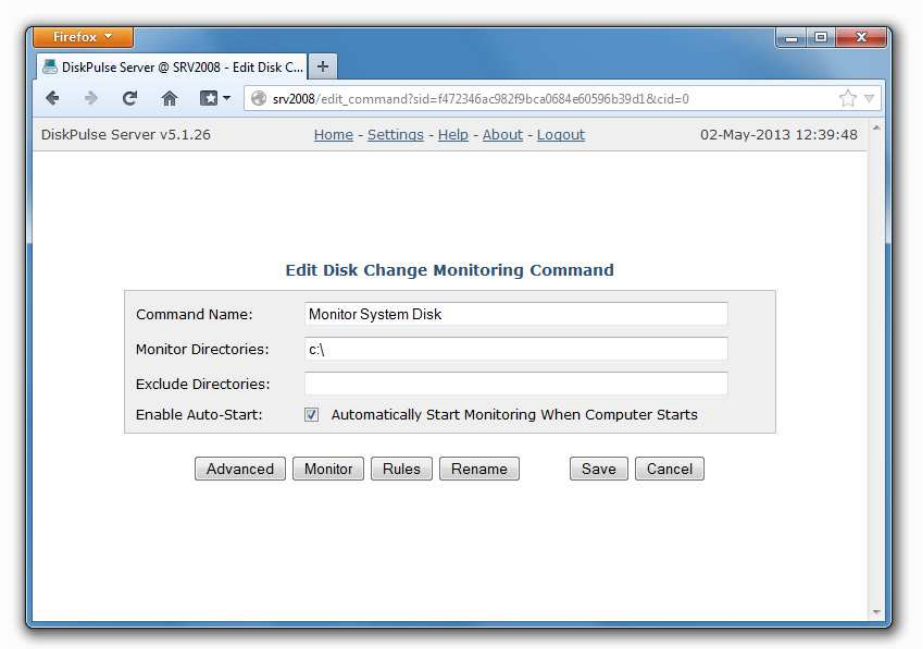
The DiskPulse Enterprise web-based interface is a dynamic web application, which automatically updates the status of active disk change monitoring operations, and in order to operate properly, the web-based interface requires JavaScript to be enabled in the web browser.

4.7 Managing Disk Change Monitoring Commands

DiskPulse Server provides the ability to setup a number of disk change monitoring commands with each one configured to monitor one or more disks and/or directories. The DiskPulse Server status page shows the configured disk change monitoring commands and allows one to start, stop, add, edit and delete disk change monitoring commands and configure advanced disk change monitoring options.



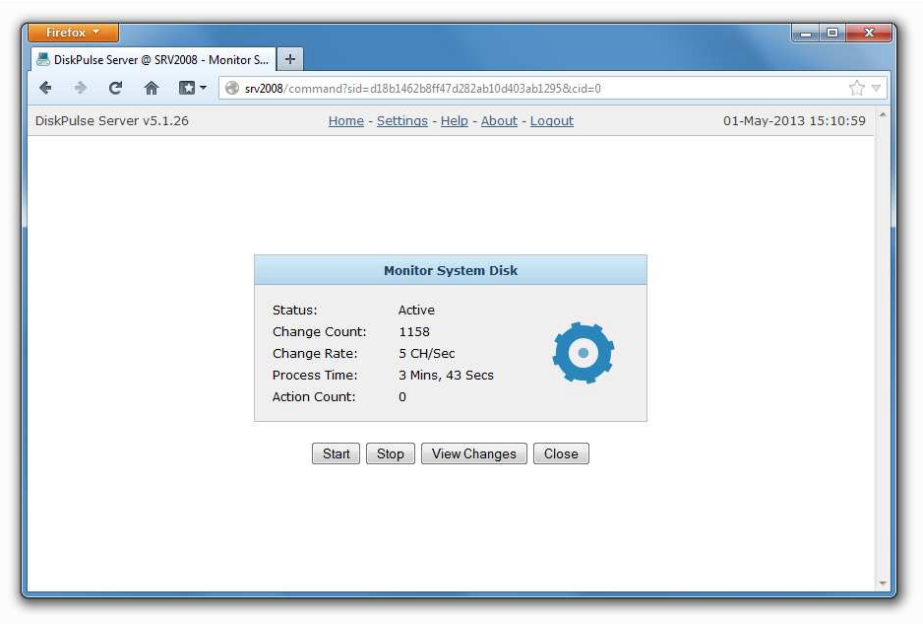
In order to add a new disk change monitoring command, press the 'Add Command' button located on the DiskPulse Server status page, enter a unique command name, specify one or more directories to monitor (multiple directories should be separated by the ';' character) and press the 'Save' button.



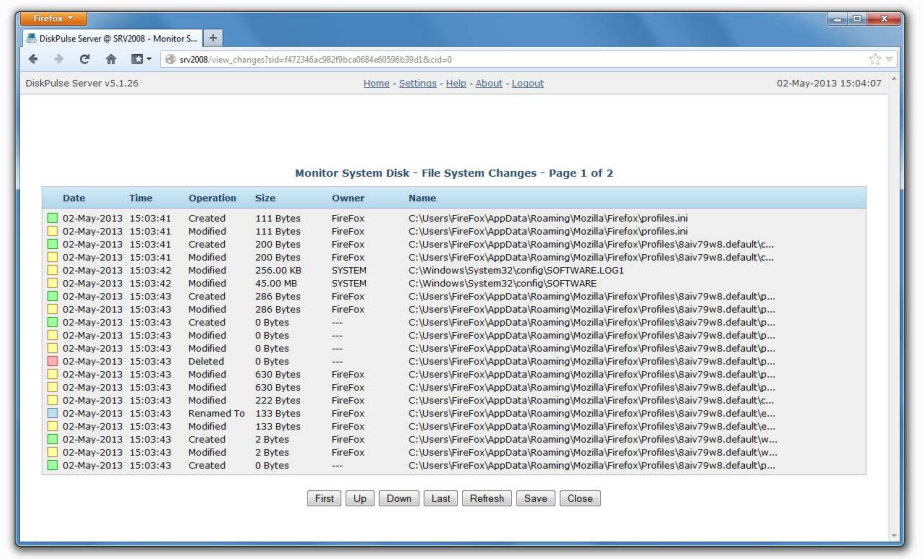
The newly created disk change monitoring command will be displayed on the DiskPulse Server status page and in order to start the monitoring command, click on the command's 'Start' button located in the 'Tools' column. DiskPulse Server provides a large set of advanced disk change monitoring options allowing one to customize monitoring operations for user-specific needs and requirements. In order to customize advanced disk change monitoring options, click the 'Edit Command' button located in the 'Tools' column.

4.8 Reviewing Monitoring Status and Detected Changes

In order to view an extended status for a disk change monitoring command, click on the monitoring command item on the DiskPulse Server main status page. The command status page shows the current status of the disk change monitoring command, the number of detected file system changes, the change rate, the monitoring process time and the total number of executed actions, saved reports and sent E-Mail notifications.



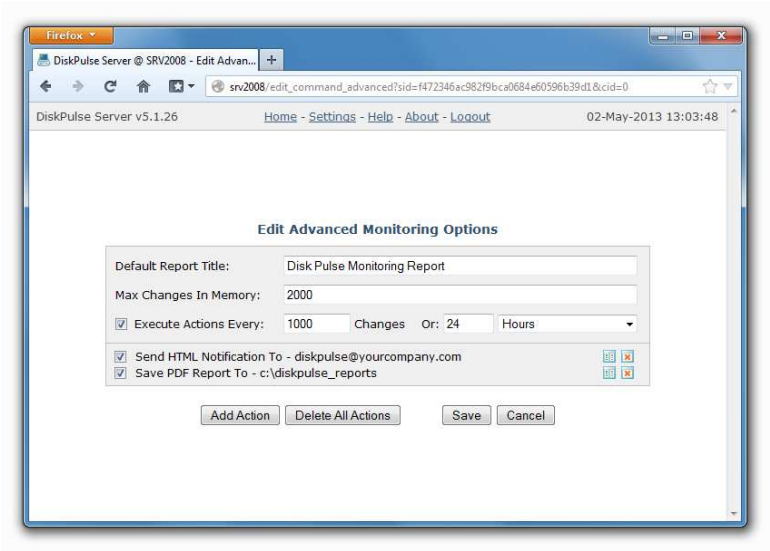
In order to review detected changes for an active or completed disk change monitoring command, open the monitoring command status page and press the 'View Changes' button. For each detected file system change, the disk change monitoring results page shows the date and time of the change, the type of the change operation (created, modified, deleted, etc.), the size of the file as recorded at the time of the change, the owner of the changed file or directory and the name of the changed file or directory.



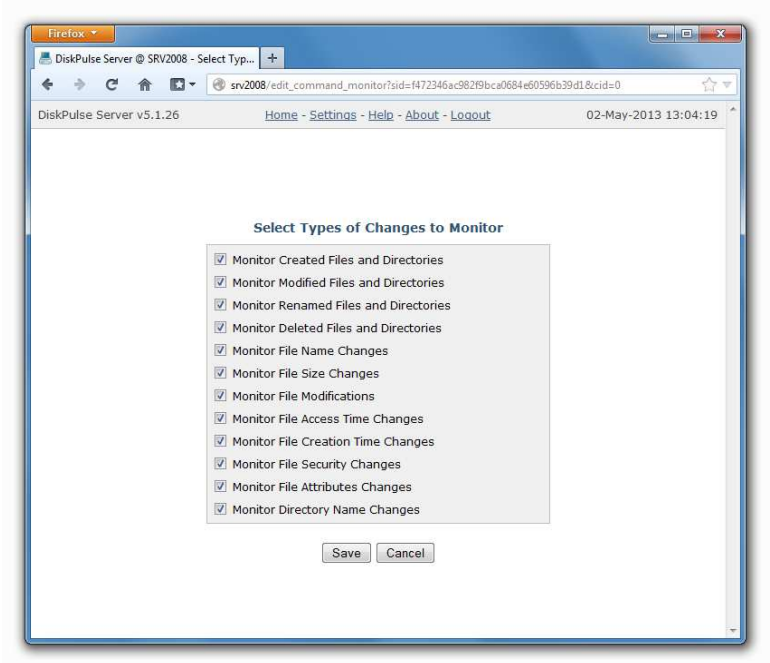
DiskPulse Server provides the ability to export detected file system changes into a large number of different formats including HTML, text, Excel CSV, XML, PDF and the DiskPulse native report format, which may be used to backup a history of disk change monitoring reports, submit reports from multiple production servers into a centralized SQL database and then perform advanced search and analysis operations.

4.9 Advanced Disk Change Monitoring Options

DiskPulse provides a large number of advanced disk change monitoring options allowing one to control specific types of file system changes to monitor, which types of files to monitor and allows one to automatically save reports and/or send E-Mail notifications when a user-specified number of changes detected.



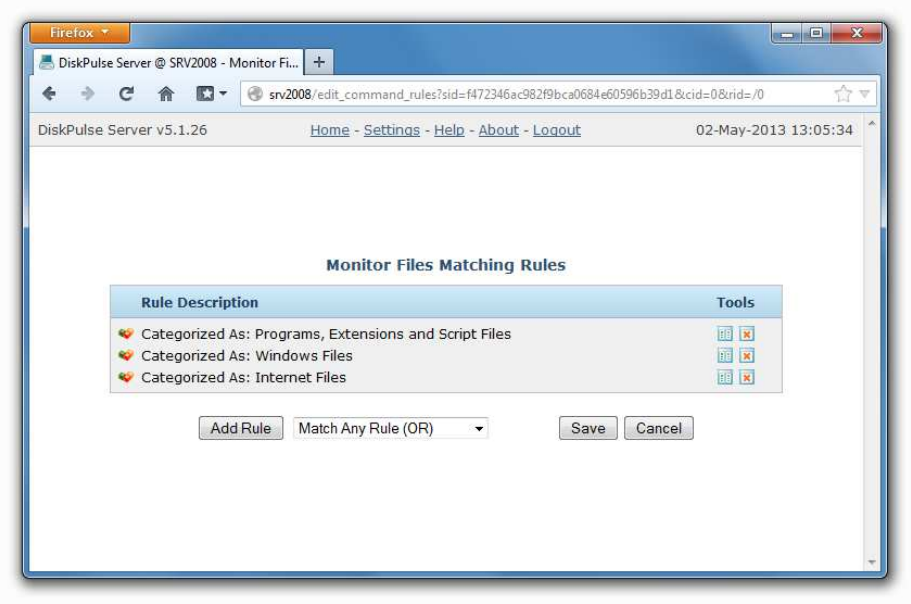
In order to open the advanced disk change monitoring options page, open the disk change monitoring command configuration page and press the 'Advanced' button. The advanced options page provides the ability to control the default report title, the number of file system changes to keep in system memory, the number of changes to trigger automatic report generation and E-Mail notification actions and a user-defined list of actions to execute when the specified number of changes detected.


Firefox
DiskPulse Server @ SRV2008 - Select Typ...
srv2008/edit_command_monitor?sid=f472346ac982f9bca0684e60596b39d1&cid=0
DiskPulse Server v5.1.26
Home - Settings - Help - About - Logout
02-May-2013 13:04:19
Select Types of Changes to Monitor
Monitor Created Files and Directories
Monitor Modified Files and Directories
Monitor Renamed Files and Directories
Monitor Deleted Files and Directories
Monitor File Name Changes
Monitor File Size Changes
Monitor File Modifications
Monitor File Access Time Changes
Monitor File Creation Time Changes
Monitor File Security Changes
Monitor File Attributes Changes
Monitor Directory Name Changes
Save
Cancel

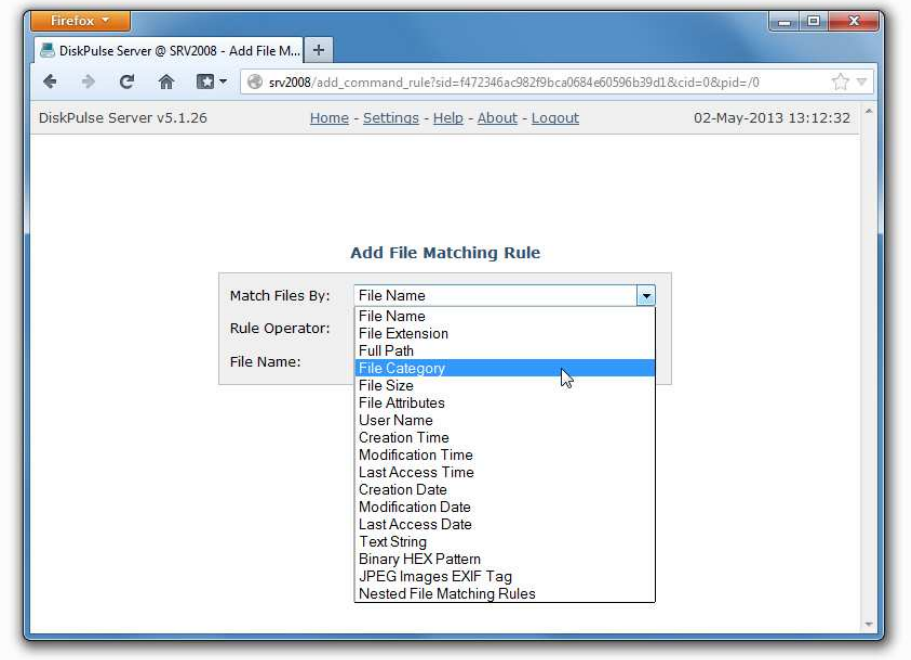
In order to configure which types of file system changes to monitor, open the monitoring command configuration page and press the 'Monitor' button. By default, DiskPulse monitors all types of file system changes, but in some situations, the user may need to focus on very specific types of changes. For example, in order to monitor file delete operations only, unselect created files, modified files and renamed files change notifications.

4.10 Monitoring Specific Types of Files

Sometimes, it may be required to monitor specific types of files while hiding changes detected in not important or temporary files. For example, the user may be interested to detect all changed programs and DLL libraries and hide all other file system changes. DiskPulse provides the ability to configure one or more file matching rules specifying which files to monitor. When one or more file matching rules are configured for a disk change monitoring command, DiskPulse will show files matching the rules and skip all other files.



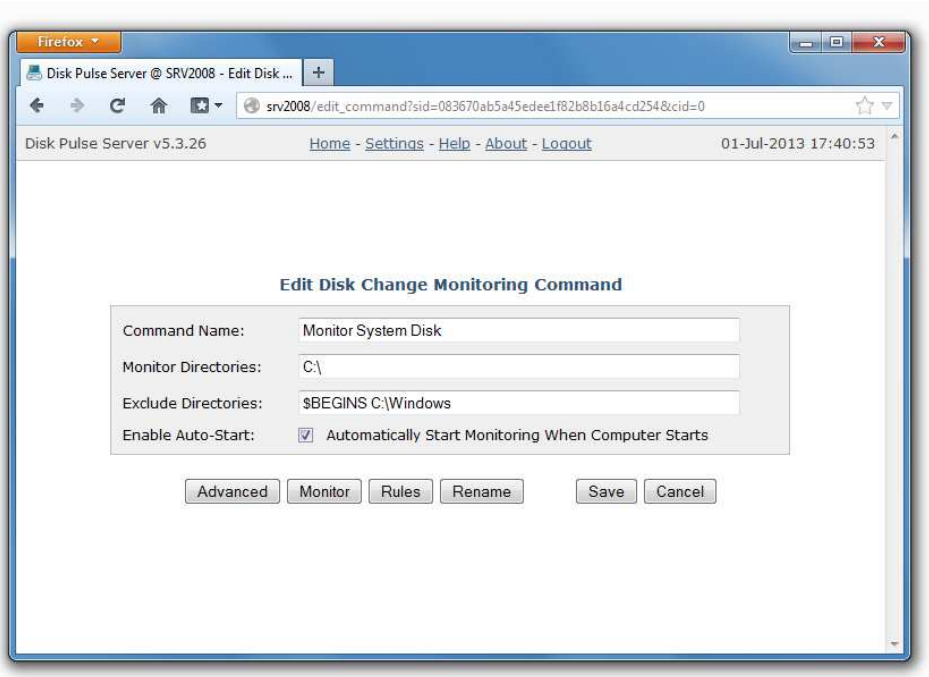
In order to configure file matching rules for a disk change monitoring command, open the monitoring command configuration page and press the 'Rules' button. Now, press the 'Add Rule' button, select an appropriate rule type and specify all the required parameters.



DiskPulse provides many different types of file matching rules allowing one to filter files by the file type, size, location, attributes, user name, etc. Multiple different types of file matching rules may be added to a single disk change monitoring operation allowing one to precisely select which types of files to monitor.

4.11 Excluding Directories from the Monitoring Process

DiskPulse Server provides the ability to exclude one or more directories from the disk change monitoring process. In order to configure exclude directories for a disk change monitoring operation, open the monitoring profile dialog, select the 'Exclude' tab and add one or more directories to exclude.



In the simplest case, just add a full directory path to exclude from the disk change monitoring process. In addition, advanced users are provided with a number of exclude directories macro commands allowing one to exclude multiple directories using a single macro command.

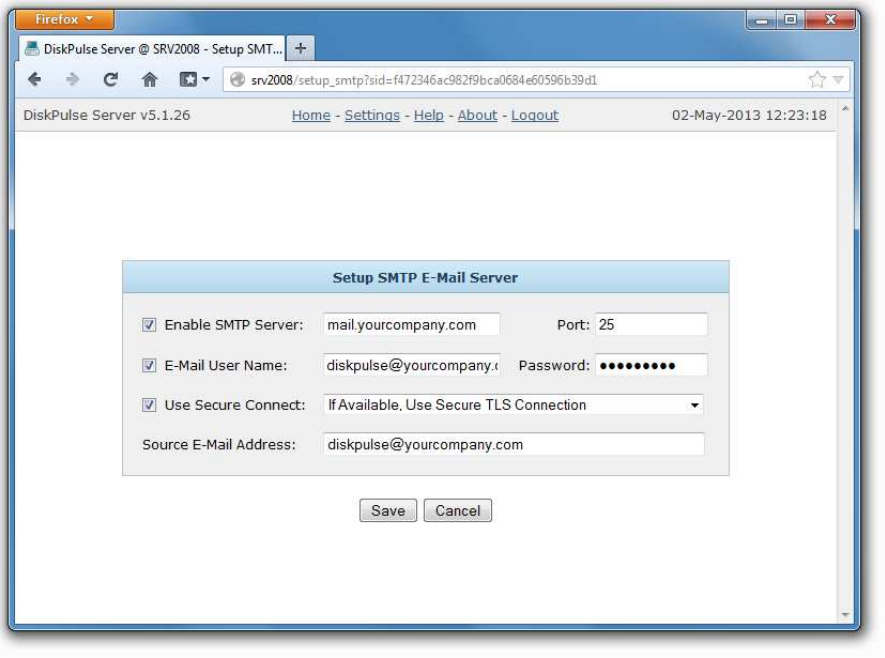
DiskPulse Server provides the following exclude directories macro commands:

- **$BEGINS <Text String>** - this macro command excludes all changes detected in directories beginning with the specified text string.
- **$CONTAINS <Text String>** - this macro command excludes all changes detected in directories containing the specified text string.
- **$ENDS <Text String>** - this macro command excludes all changes detected in directories ending with the specified text string.
- **$REGEX <Regular Expression>** - this macro command excludes all changes detected in directories matching the specified regular expression.

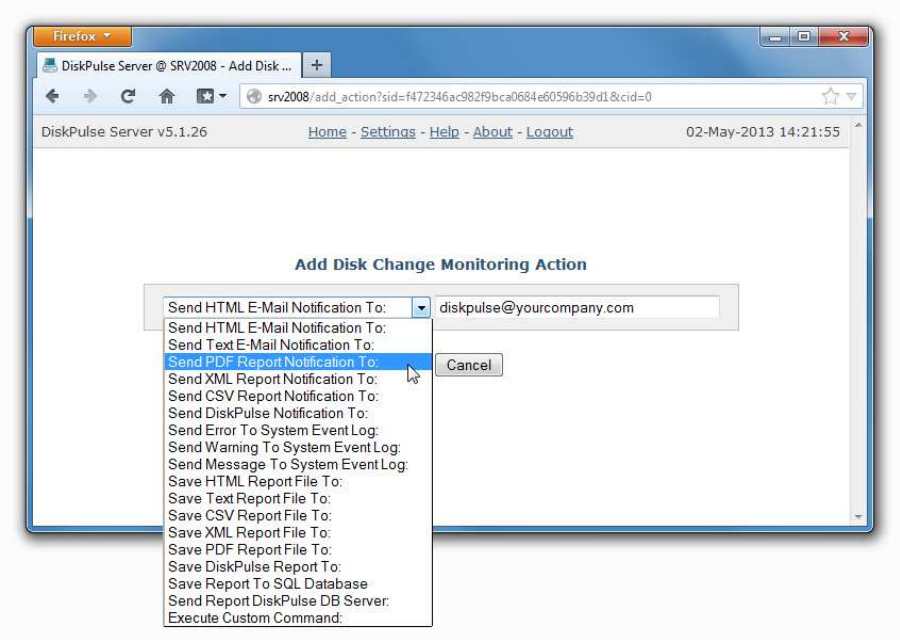
For example, the exclude macro command '$CONTAINS Temporary Files' will exclude all changes detected in directories with 'Temporary Files' at any place in the full directory path and the exclude macro command '$REGEX \.(TMP|TEMP)$' will exclude changes detected in directories ending with '.TMP' or '.TEMP'.

4.12 Sending E-Mail Notifications

DiskPulse provides the ability to send E-Mail notifications when a disk change monitoring command detects a user-specified number of changes. In order to configure E-Mail notifications, open the main settings page and click on the 'Configure E-Mail Server' link.



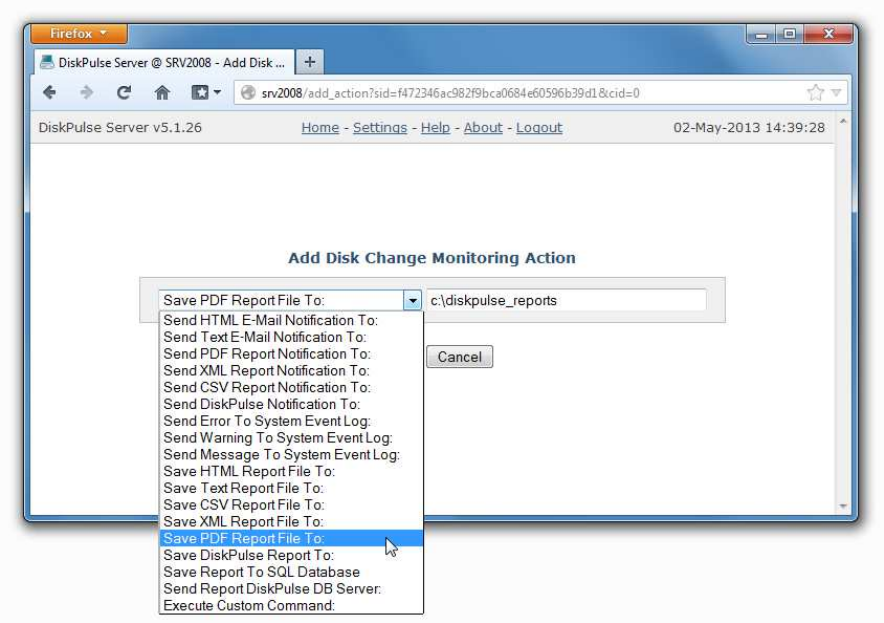
On the E-Mail server configuration page, enter the SMTP server host name, port, user name, password and the source E-Mail address to use to send E-Mail notifications. Optionally, enable the secure SMTP connection mode and select an appropriate security algorithm.


Firefox
DiskPulse Server @ SRV2008 - Add Disk ...
srv2008/add_action?sid=f472346ac982f9bca0684e60596b39d1&cid=0
DiskPulse Server v5.1.26
Home - Settings - Help - About - Logout
02-May-2013 14:21:55
Add Disk Change Monitoring Action
Send HTML E-Mail Notification To:
diskpulse@yourcompany.com
Send HTML E-Mail Notification To:
Send Text E-Mail Notification To:
Send PDF Report Notification To:
Send XML Report Notification To:
Send CSV Report Notification To:
Send DiskPulse Notification To:
Send Error To System Event Log:
Send Warning To System Event Log:
Send Message To System Event Log:
Save HTML Report File To:
Save Text Report File To:
Save CSV Report File To:
Save XML Report File To:
Save PDF Report File To:
Save DiskPulse Report To:
Save Report To SQL Database
Send Report DiskPulse DB Server:
Execute Custom Command:
Cancel

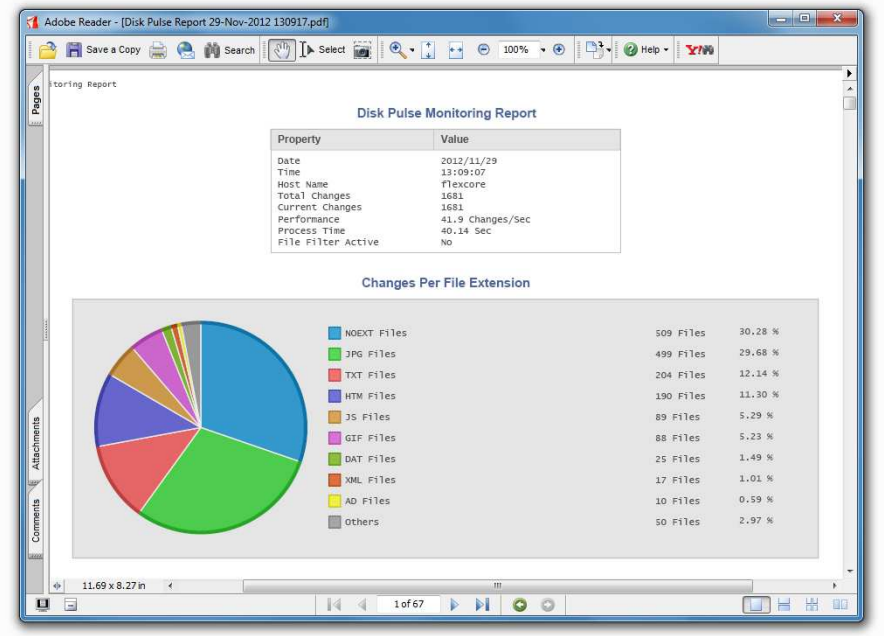
Now, open the advanced disk change monitoring options page, press the 'Add Action' button, select an appropriate E-Mail notification type and enter a destination E-Mail address to send notifications to. The simplest notification type is the 'HTML E-Mail Notification' which includes detected file system changes in the E-Mail message body in the HTML format. A more advanced option is the 'PDF Report' notification, which attaches a PDF report to each E-Mail notification and includes graphical pie charts and additional statistics.

4.13 Saving Disk Change Monitoring Reports

In addition to E-Mail notifications, DiskPulse provides the ability to automatically save disk change monitoring reports when a user-specified number of changes detected. In order to configure automatic report generation, open the advanced disk change monitoring page, press the 'Add Action' button, select an appropriate report format and specify a file name or a directory name to save reports to.


Firefox
DiskPulse Server @ SRV2008 - Add Disk ...
srv2008/add_action?sid=f472346ac982f9bca0684e60596b39d1&cid=0
DiskPulse Server v5.1.26
Home - Settings - Help - About - Logout
02-May-2013 14:39:28
Add Disk Change Monitoring Action
Save PDF Report File To:
c:\diskpulse_reports
Send HTML E-Mail Notification To:
Send Text E-Mail Notification To:
Send PDF Report Notification To:
Send XML Report Notification To:
Send CSV Report Notification To:
Send DiskPulse Notification To:
Send Error To System Event Log:
Send Warning To System Event Log:
Send Message To System Event Log:
Save HTML Report File To:
Save Text Report File To:
Save CSV Report File To:
Save XML Report File To:
Save PDF Report File To:
Save DiskPulse Report To:
Save Report To SQL Database
Send Report DiskPulse DB Server:
Execute Custom Command:
Cancel

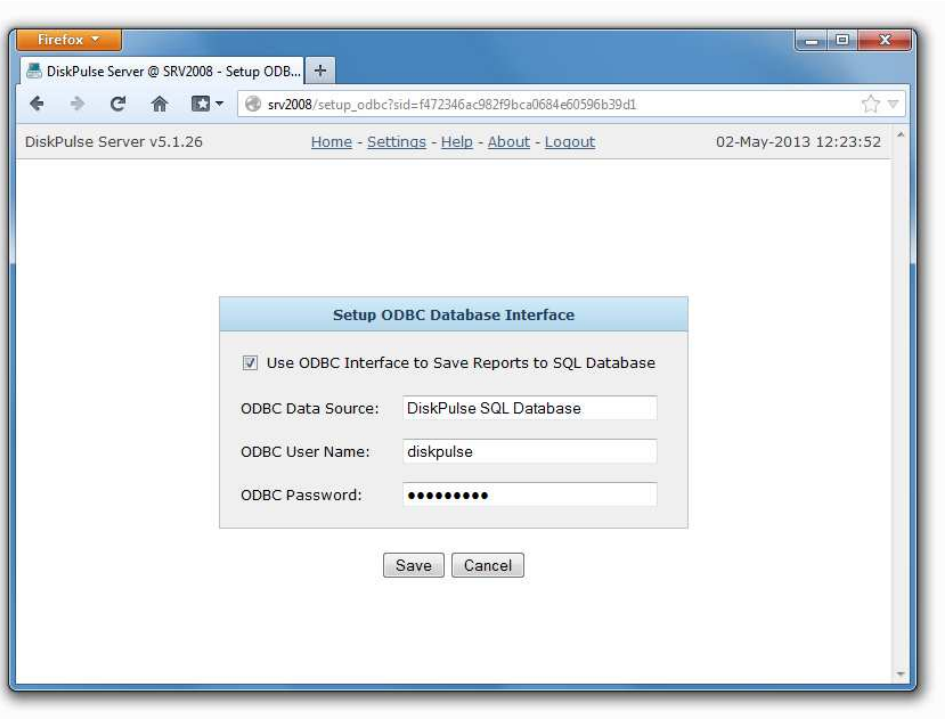
If a file name is specified, DiskPulse will always save reports to the same file and this file will contain last X file system changes according to the user-specified configuration. If a directory name is specified, DiskPulse will automatically generate report file names including the report date and time for each new report file.


Adobe Reader - [Disk Pulse Report 29-Nov-2012 130917.pdf]
Disk Pulse Monitoring Report
Property
Value
Date 2012/11/29
Time 13:09:07
Host Name flexcore
Total Changes 1681
Current Changes 1681
Performance 41.9 Changes/Sec
Process Time 40.14 Sec
File Filter Active No
Changes Per File Extension
NOEXT Files 509 Files 30.28 %
JPG Files 499 Files 29.68 %
TXT Files 204 Files 12.14 %
HTM Files 190 Files 11.30 %
JS Files 89 Files 5.29 %
GIF Files 88 Files 5.23 %
DAT Files 25 Files 1.49 %
XML Files 17 Files 1.01 %
AD Files 10 Files 0.59 %
Others 50 Files 2.97 %

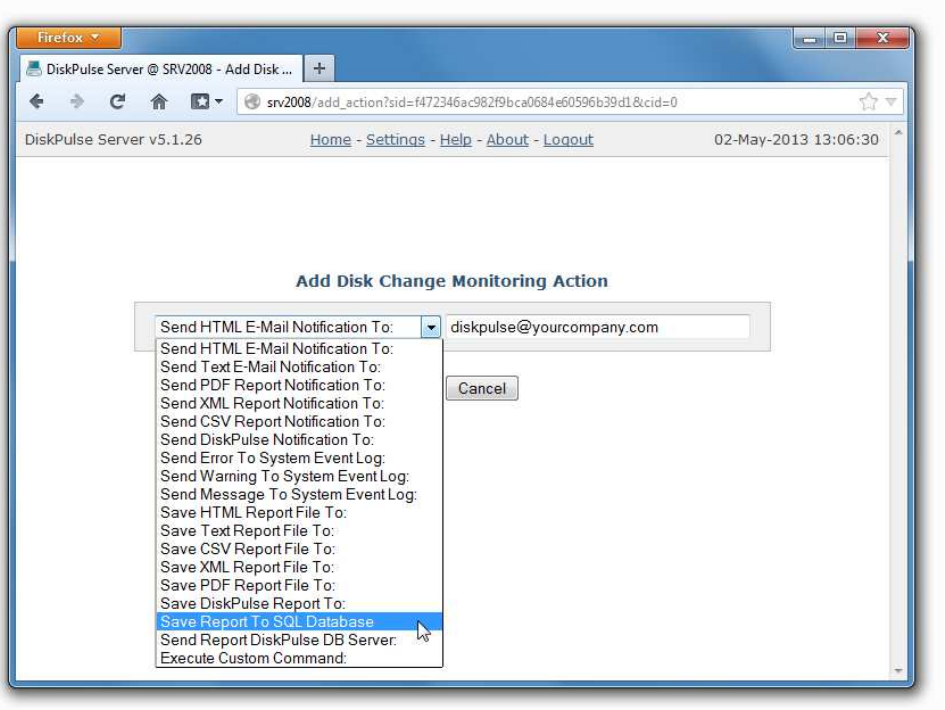
DiskPulse provides a variety of report formats including HTML, text, Excel CSV, XML, PDF and the native DiskPulse report format, which may be used to backup a history of detected file system changes, submit reports from multiple servers to a centralized SQL database and then perform advanced search and analysis operations.

4.14 Saving Reports to an SQL Database

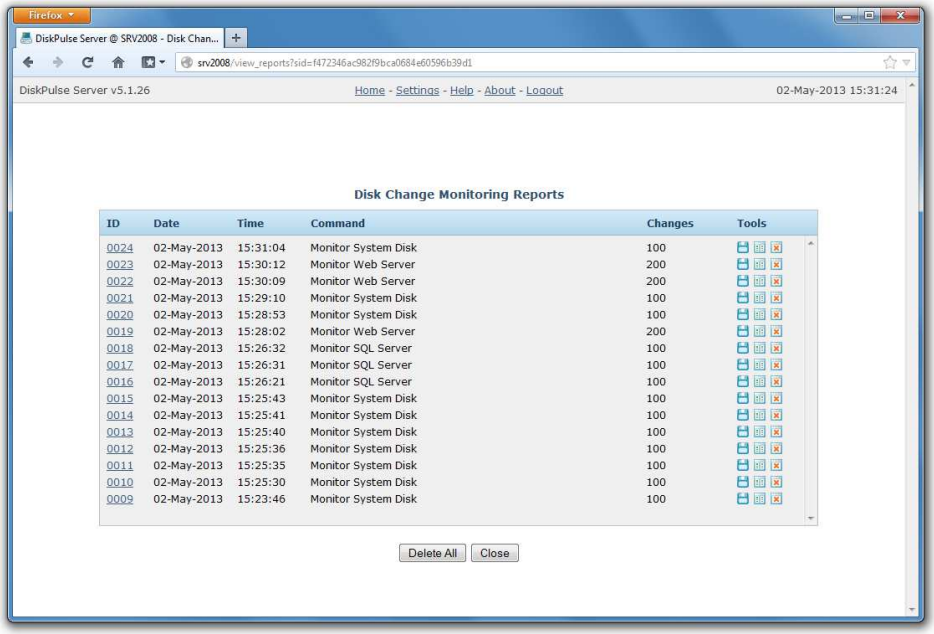
DiskPulse allows one to save disk change monitoring reports in an SQL database. In order to enable SQL database reports, open the main settings page and click on the 'Configure SQL Database' link. On the SQL database configuration page enter the ODBC data source, user name and password to use to save reports to the SQL database.



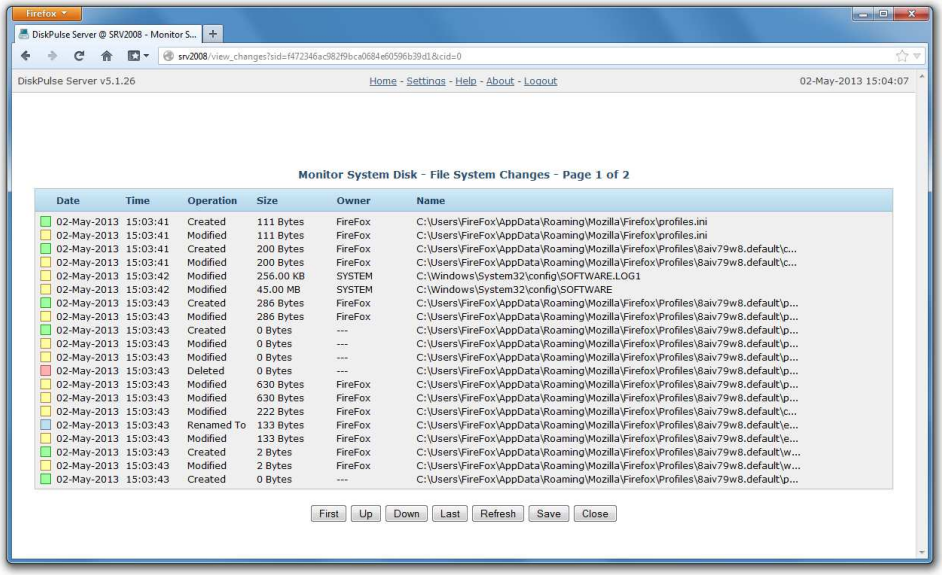
Now, open the advanced disk change monitoring options page, press the 'Add Action' button and select the 'Save Report to SQL Database' action type. During the disk change monitoring process, DiskPulse server will save every X detected file system changes to the specified SQL database according to the configuration set on the advanced monitoring options page.


Firefox
DiskPulse Server @ SRV2008 - Add Disk ...
srv2008/add_action?sid=f472346ac982f9bca0684e60596b39d1&cid=0
DiskPulse Server v5.1.26
Home - Settings - Help - About - Logout
02-May-2013 13:06:30
Add Disk Change Monitoring Action
Send HTML E-Mail Notification To:
diskpulse@yourcompany.com
Send HTML E-Mail Notification To:
Send Text E-Mail Notification To:
Send PDF Report Notification To:
Send XML Report Notification To:
Send CSV Report Notification To:
Send DiskPulse Notification To:
Send Error To System Event Log:
Send Warning To System Event Log:
Send Message To System Event Log:
Save HTML Report File To:
Save Text Report File To:
Save CSV Report File To:
Save XML Report File To:
Save PDF Report File To:
Save DiskPulse Report To:
Save Report To SQL Database
Send Report DiskPulse DB Server:
Execute Custom Command:
Cancel

With an enabled and properly configured SQL database, all reports saved in the SQL database will be displayed on the reports page. In order to open the reports page, press the 'Reports' button located on the DiskPulse Server main status page. For each disk change monitoring report, the reports page shows the report ID, the report date and time, the name of the disk change monitoring command generated the report and the number of file system changes saved in each specific report.


DiskPulse Server v5.1.26
Home - Settings - Help - About - Logout
02-May-2013 15:31:24
Disk Change Monitoring Reports
ID Date Time Command Changes Tools
0024 02-May-2013 15:31:04 Monitor System Disk 100
0023 02-May-2013 15:30:12 Monitor Web Server 200
0022 02-May-2013 15:30:09 Monitor Web Server 200
0021 02-May-2013 15:29:10 Monitor System Disk 100
0020 02-May-2013 15:28:53 Monitor System Disk 100
0019 02-May-2013 15:28:02 Monitor Web Server 200
0018 02-May-2013 15:26:32 Monitor SQL Server 100
0017 02-May-2013 15:26:31 Monitor SQL Server 100
0016 02-May-2013 15:26:21 Monitor SQL Server 100
0015 02-May-2013 15:25:43 Monitor System Disk 100
0014 02-May-2013 15:25:41 Monitor System Disk 100
0013 02-May-2013 15:25:40 Monitor System Disk 100
0012 02-May-2013 15:25:36 Monitor System Disk 100
0011 02-May-2013 15:25:35 Monitor System Disk 100
0010 02-May-2013 15:25:30 Monitor System Disk 100
0009 02-May-2013 15:23:46 Monitor System Disk 100
Delete All
Close

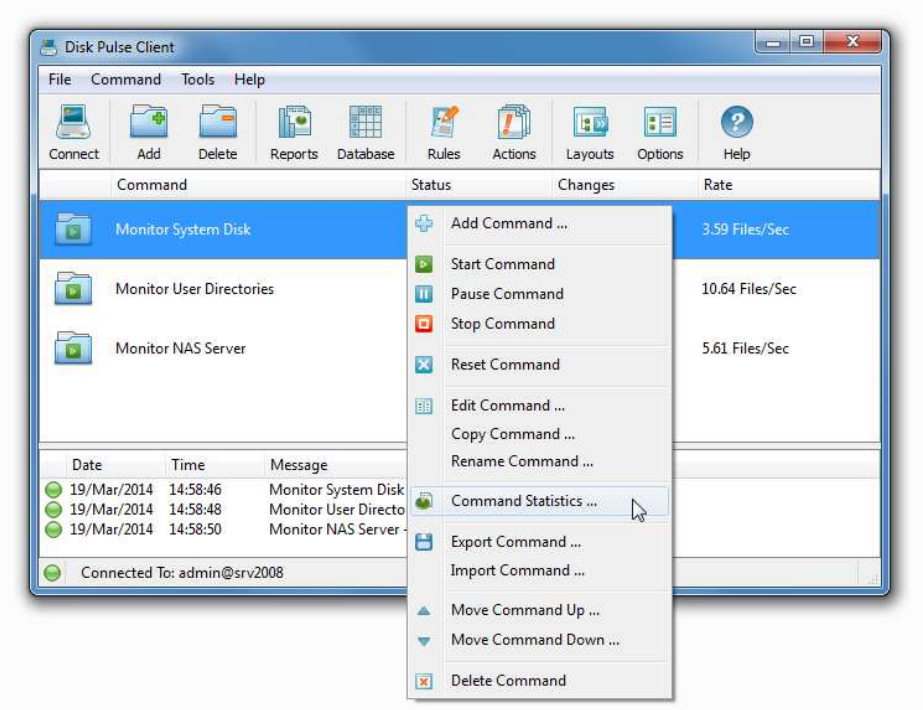
DiskPulse Server provides the ability to export previously saved disk change monitoring reports to one of the standard report formats including HTML, text, Excel CSV, XML, PDF and the DiskPulse native report format. In order to export a previously saved disk change monitoring report, press the 'Save' button located in the 'Tools' column.


DiskPulse Server v5.1.26
Home - Settings - Help - About - Logout
02-May-2013 15:04:07
Monitor System Disk - File System Changes - Page 1 of 2
Date Time Operation Size Owner Name
02-May-2013 15:03:41 Created 111 Bytes FireFox C:\Users\FireFox\AppData\Roaming\Mozilla\Firefox\profiles.ini
02-May-2013 15:03:41 Modified 111 Bytes FireFox C:\Users\FireFox\AppData\Roaming\Mozilla\Firefox\profiles.ini
02-May-2013 15:03:41 Created 200 Bytes FireFox C:\Users\FireFox\AppData\Roaming\Mozilla\Firefox\Profiles\8aiv79w8.default\c...
02-May-2013 15:03:41 Modified 200 Bytes FireFox C:\Users\FireFox\AppData\Roaming\Mozilla\Firefox\Profiles\8aiv79w8.default\c...
02-May-2013 15:03:42 Modified 256.00 KB SYSTEM C:\Windows\System32\config\SOFTWARE.LOG1
02-May-2013 15:03:42 Modified 45.00 MB SYSTEM C:\Windows\System32\config\SOFTWARE
02-May-2013 15:03:43 Created 286 Bytes FireFox C:\Users\FireFox\AppData\Roaming\Mozilla\Firefox\Profiles\8aiv79w8.default\p...
02-May-2013 15:03:43 Modified 286 Bytes FireFox C:\Users\FireFox\AppData\Roaming\Mozilla\Firefox\Profiles\8aiv79w8.default\p...
02-May-2013 15:03:43 Created 0 Bytes --- C:\Users\FireFox\AppData\Roaming\Mozilla\Firefox\Profiles\8aiv79w8.default\p...
02-May-2013 15:03:43 Modified 0 Bytes --- C:\Users\FireFox\AppData\Roaming\Mozilla\Firefox\Profiles\8aiv79w8.default\p...
02-May-2013 15:03:43 Modified 0 Bytes --- C:\Users\FireFox\AppData\Roaming\Mozilla\Firefox\Profiles\8aiv79w8.default\p...
02-May-2013 15:03:43 Deleted 0 Bytes --- C:\Users\FireFox\AppData\Roaming\Mozilla\Firefox\Profiles\8aiv79w8.default\p...
02-May-2013 15:03:43 Modified 630 Bytes FireFox C:\Users\FireFox\AppData\Roaming\Mozilla\Firefox\Profiles\8aiv79w8.default\p...
02-May-2013 15:03:43 Modified 630 Bytes FireFox C:\Users\FireFox\AppData\Roaming\Mozilla\Firefox\Profiles\8aiv79w8.default\p...
02-May-2013 15:03:43 Modified 222 Bytes FireFox C:\Users\FireFox\AppData\Roaming\Mozilla\Firefox\Profiles\8aiv79w8.default\c...
02-May-2013 15:03:43 Renamed To 133 Bytes FireFox C:\Users\FireFox\AppData\Roaming\Mozilla\Firefox\Profiles\8aiv79w8.default\e...
02-May-2013 15:03:43 Modified 133 Bytes FireFox C:\Users\FireFox\AppData\Roaming\Mozilla\Firefox\Profiles\8aiv79w8.default\e...
02-May-2013 15:03:43 Created 2 Bytes FireFox C:\Users\FireFox\AppData\Roaming\Mozilla\Firefox\Profiles\8aiv79w8.default\w...
02-May-2013 15:03:43 Modified 2 Bytes FireFox C:\Users\FireFox\AppData\Roaming\Mozilla\Firefox\Profiles\8aiv79w8.default\w...
02-May-2013 15:03:43 Created 0 Bytes --- C:\Users\FireFox\AppData\Roaming\Mozilla\Firefox\Profiles\8aiv79w8.default\p...
First Up Down Last Refresh Save Close

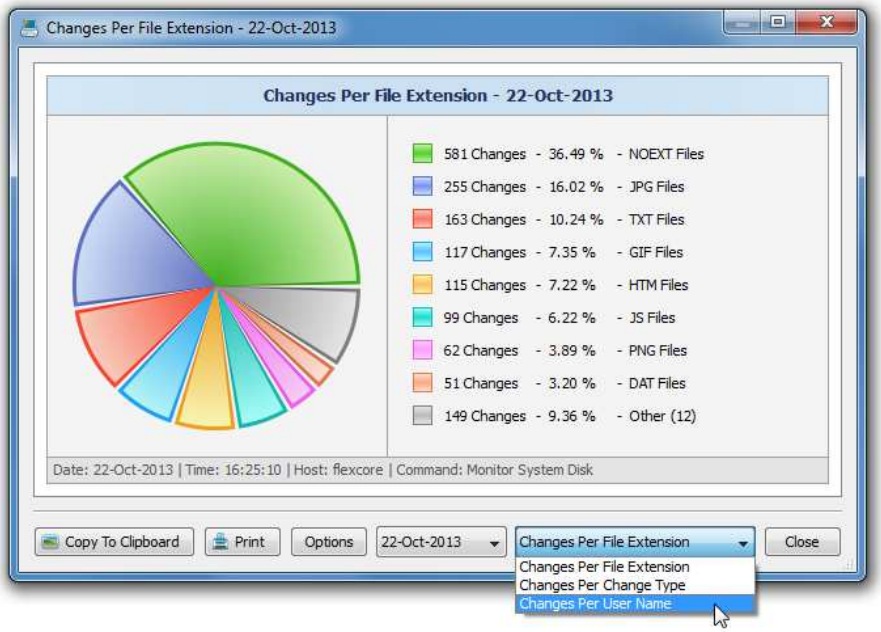
In order to open a previously saved disk change monitoring report, just click on the report item displayed on the reports page. For each detected file system change, the disk change monitoring results page shows the date and time of the change, the type of the change operation (created, modified, deleted, etc.), the size of the file as recorded at the time of the change, the owner of the changed file or directory and the name of the changed file or directory.

4.15 Disk Change Monitoring History Statistics

DiskPulse Enterprise allows one to display history statistics pie charts showing the number of changes per file extension, the number of changes per change type and the number of changes per user name.



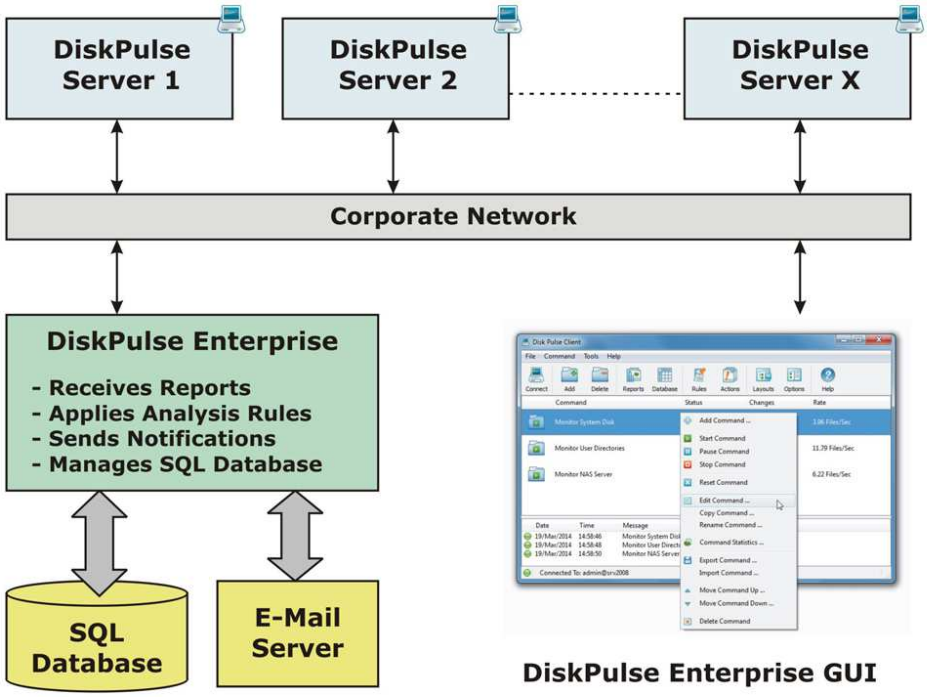
In order to open the disk change monitoring statistics dialog, start the DiskPulse client GUI application, select a disk change monitoring command, press the right mouse button and select the 'Command Statistics' menu item.


Changes Per File Extension - 22-Oct-2013
Changes Per File Extension - 22-Oct-2013
581 Changes - 36.49 % - NOEXT Files
255 Changes - 16.02 % - JPG Files
163 Changes - 10.24 % - TXT Files
117 Changes - 7.35 % - GIF Files
115 Changes - 7.22 % - HTM Files
99 Changes - 6.22 % - JS Files
62 Changes - 3.89 % - PNG Files
51 Changes - 3.20 % - DAT Files
149 Changes - 9.36 % - Other (12)
Date: 22-Oct-2013 | Time: 16:25:10 | Host: flexcore | Command: Monitor System Disk
Copy To Clipboard
Print
Options
22-Oct-2013
Changes Per File Extension
Close
Changes Per File Extension
Changes Per Change Type
Changes Per User Name

By default, DiskPulse Enterprise keeps disk change monitoring statistics for the last 10 days. In order to change the history statistics configuration options, connect to DiskPulse Enterprise using the client GUI application and open the 'Options' dialog.

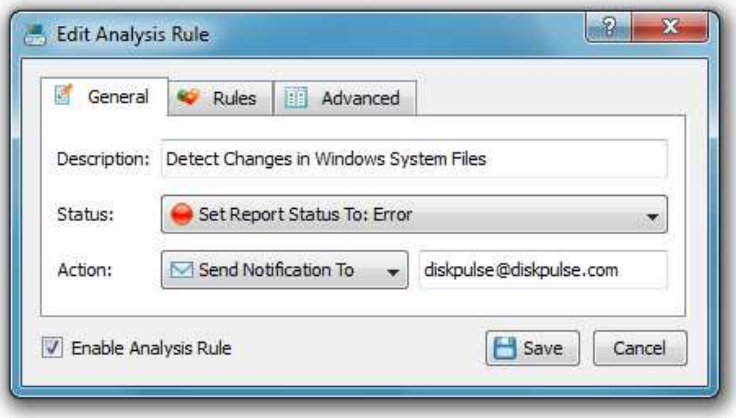
4.16 Using DiskPulse Enterprise

DiskPulse Enterprise can be used as a centralized reports database server capable of receiving disk change monitoring reports from multiple production servers. DiskPulse Enterprise allows one to define a centralized set of report analysis rules, which are automatically applied to disk change monitoring reports received from production servers, detect critical file system changes and send E-Mail notifications.



DiskPulse Enterprise GUI

DiskPulse Enterprise runs in the background as a service and uses a built-in reports database to store disk change monitoring reports received from production servers. The user is provided with a client GUI application, which connects to DiskPulse Enterprise through the network and allows one to review received reports, configure report analysis rules and manage the reports database.



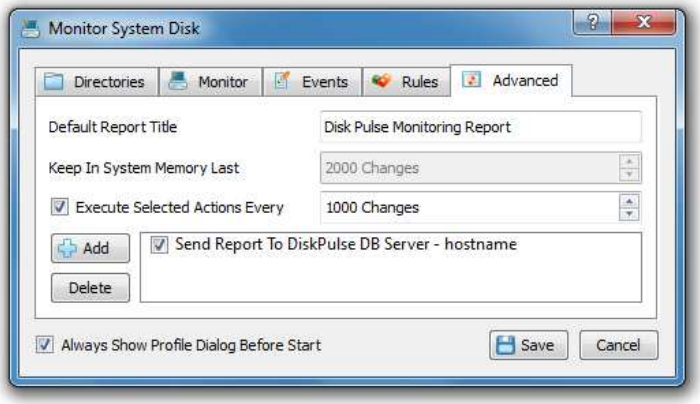
In order to define one or more analysis rules, press the 'Rules' button located on the main tool bar in the DiskPulse client GUI application. On the 'Analysis Rules' dialog, press the 'Add' button, specify the rule description, select the type of the action to perform and enter an E-Mail address to send notifications to.

Optionally, select the 'Rules' tab and add one or more file matching rules specifying file types the rule should be applied to. Finally, the 'Advanced' tab allows one to control the following advanced options: hosts the rule should be applied to (all or a specific host), report titles the rule should be applied to and change types the rule should be applied to (all or a specific change type).

The specified report analysis rules are applied to incoming disk change monitoring reports in the same order as specified in the 'Rules' dialog. In order to change the order of a rule, select the rule and press the 'Up' or 'Down' buttons. The simplest way to submit a disk change monitoring report to DiskPulse Enterprise is to use the regular DiskPulse GUI application, which is available in DiskPulse, DiskPulse Pro and DiskPulse Ultimate installations. In order to submit a disk change monitoring report, start the DiskPulse GUI application and select the 'File - Submit to DiskPulse Server' menu item.

On the 'Submit' dialog specify the host name or the IP address of the DiskPulse Enterprise and press the 'Ok' button. By default, the DiskPulse Enterprise uses the TCP/IP port 9120 to receive reports from production servers, but the port number may be changed to any custom port number according to user-specific needs. In order to specify a user-custom port number when submitting reports to the DiskPulse Enterprise use the following format: hostname:port.

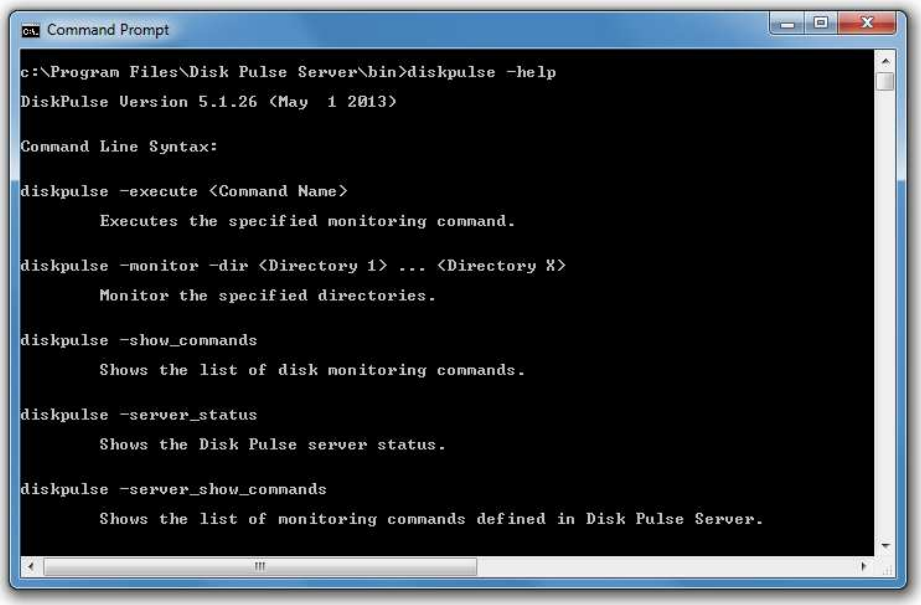
Manual submission of disk change monitoring reports to the DiskPulse Enterprise is good for testing purposes, but if you need to automatically collect disk change monitoring reports from a number of production servers to a central DiskPulse database server, you need to configure automatic report submission actions.



In order to configure DiskPulse servers (running on production servers) to automatically submit disk change monitoring reports to the DiskPulse database server, open the disk change monitoring command (on each production server), select the 'Advanced' tab, enable execution of automatic disk monitoring actions, specify the number of changes to trigger the actions and add a disk monitoring action configured to send reports to a DiskPulse Enterprise.

4.17 Using DiskPulse Server Command Line Utility

DiskPulse Server provides a command line utility allowing one to control one or more servers locally or through the network using batch files and shell scripts. The DiskPulse command line utility is located in the **'<ProductDir>\bin'** directory.


Command Prompt
c:\Program Files\Disk Pulse Server\bin>diskpulse -help
DiskPulse Version 5.1.26 (May 1 2013)
Command Line Syntax:
diskpulse -execute <Command Name>
Executes the specified monitoring command.
diskpulse -monitor -dir <Directory 1> ... <Directory X>
Monitor the specified directories.
diskpulse -show_commands
Shows the list of disk monitoring commands.
diskpulse -server_status
Shows the Disk Pulse server status.
diskpulse -server_show_commands
Shows the list of monitoring commands defined in Disk Pulse Server.

DiskPulse Command Line Utility Server Commands:

diskpulse -server_show_commands

This command shows disk change monitoring commands configured in the DiskPulse server.

diskpulse -server_execute_command <Monitoring Command Name>

This command synchronously executes the specified disk change monitoring command.

diskpulse -server_start_command <Monitoring Command Name>

This command starts the specified disk change monitoring command and exists.

diskpulse -server_pause_command <Monitoring Command Name>

This command pauses an active disk change monitoring command.

diskpulse -server_reset_command <Monitoring Command Name>

This command resets and clears detected file system changes from an active disk change monitoring command.

diskpulse -server_stop_command <Monitoring Command Name>

This command stops an active disk change monitoring command.

diskpulse -server_show_changes <Monitoring Command Name>

This command shows file system changes detected by a disk change monitoring command.

diskpulse -server_save_report <Command Name> -format <Report Format>

This command saves file system changes detected by a disk change monitoring command to a report file according to the specified report format, which may be set to one of the following values: HTML, TEXT, CSV, XML, PDF and FLR (the native DiskPulse report format). In addition, the command line utility provides the **'-report'** command line option, which may be used to specify a file name or a directory name to save the report to. If no file name or directory name is specified, the report will be saved in the user's home directory with an automatically generated file name including the current date and time.

diskpulse -server_save_to_database <Command Name>

This command saves detected changes to the SQL database configured on the 'Options' dialog.

diskpulse -server_command_status <Command Name>

This command shows the status of the specified disk change monitoring command.

diskpulse -server_ status

This command shows the DiskPulse Server debug status.

diskpulse -server_show_debug_log

This command shows the DiskPulse Server debug message log.

diskpulse -server_clear_debug_log

This command clears the DiskPulse Server debug message log.

diskpulse -server_set_user <User Name>

This command sets the DiskPulse Server user name. In order to reset a forgotten user name, execute the command locally on the same host where the DiskPulse server is installed on.

diskpulse -server_set_password <Password>

This command sets the DiskPulse Server password. In order to reset a forgotten password, execute the command locally on the same host where the DiskPulse server is installed on.

diskpulse -server_set_port <Server Control Port>

This command sets the DiskPulse server control port (default is 9120). After executing this command, the DiskPulse service should be restarted. In order to be able to connect to the server through the network the server control port should be open in the server's firewall.

diskpulse -server_export_config <Configuration File Name>

This command exports the DiskPulse Server configuration to the specified file.

diskpulse -server_import_config <Configuration File Name>

This command imports the DiskPulse Server configuration from the specified file.

diskpulse -server_register_online -customer <Customer Name> -key <Unlock Key> -servers <Server1;Server2;ServerX>

This command performs the online product registration procedure for one or more DiskPulse servers via the network. The command should be executed on a host directly connected to the Internet. Internet access for the registered DiskPulse servers is not required.

diskpulse -server_export_product_id -directory <Directory> -customer <Customer> -key <Unlock Key> -servers <Server1;Server2;ServerX>

This command exports product ID files from one or more DiskPulse Servers to the specified directory.

diskpulse -server_import_unlock_file -directory <Directory>

This command performs the manual product registration procedure via the network using unlock files located in the specified directory.

Optional Command Line Parameters:

-host <Host Name>

Sets the host name of the DiskPulse server to connect to (default is localhost).

-port <Port Number>

Sets the DiskPulse server control port number to connect to (default is 9120).

-user <User Name>

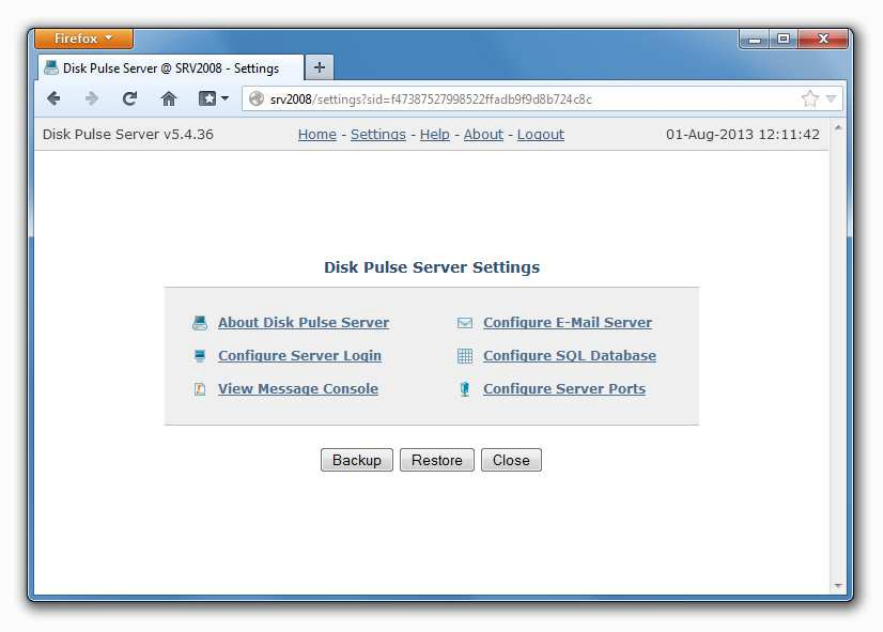
Sets the DiskPulse server user name to login with (default is '**admin**').

-password <Password>

Sets the DiskPulse server password to login with (default is '**admin**').

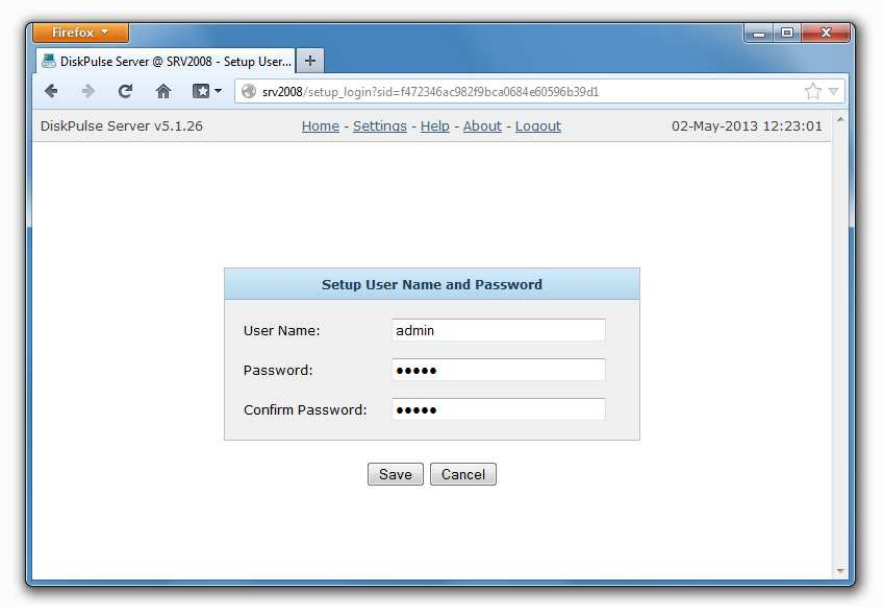
4.18 Configuring DiskPulse Server

DiskPulse Server provides a variety of configuration options allowing one to easily integrate the product into a user-specific network environment. In order to open the main settings page, click on the 'Settings' link located on the top menu bar.



4.19 Configuring Custom User Name and Password

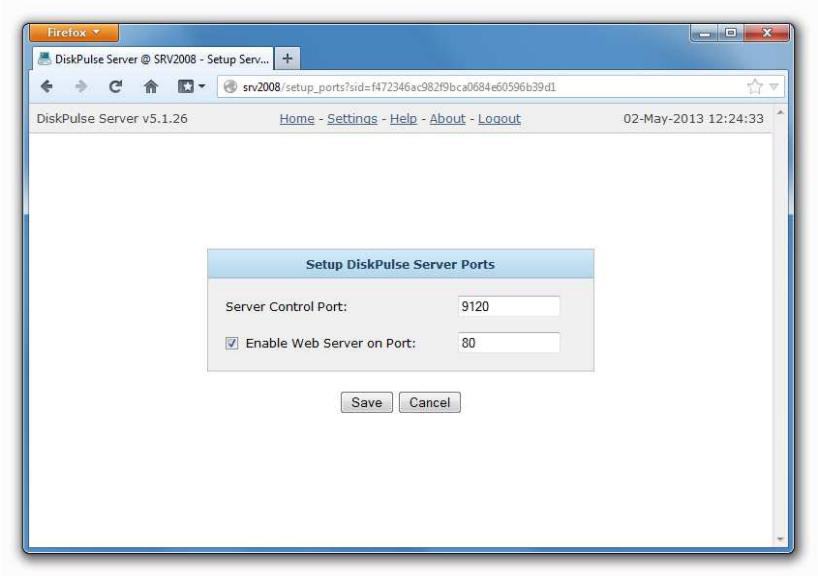
The DiskPulse Server web-based management console requires users to login with a DiskPulse user name and password. The default user name and password is set to **admin**/**admin**. In addition, DiskPulse Server provides the ability to set a custom user name and/or password for the DiskPulse web-based management interface and the command line utility, which may be used to automate configuration and management tasks.



In order to set a custom user name and password, click on the 'Configure Server Login' link located on the main settings page, enter a new user name and password and press the 'Save' button.

4.20 Configuring Custom Server Ports

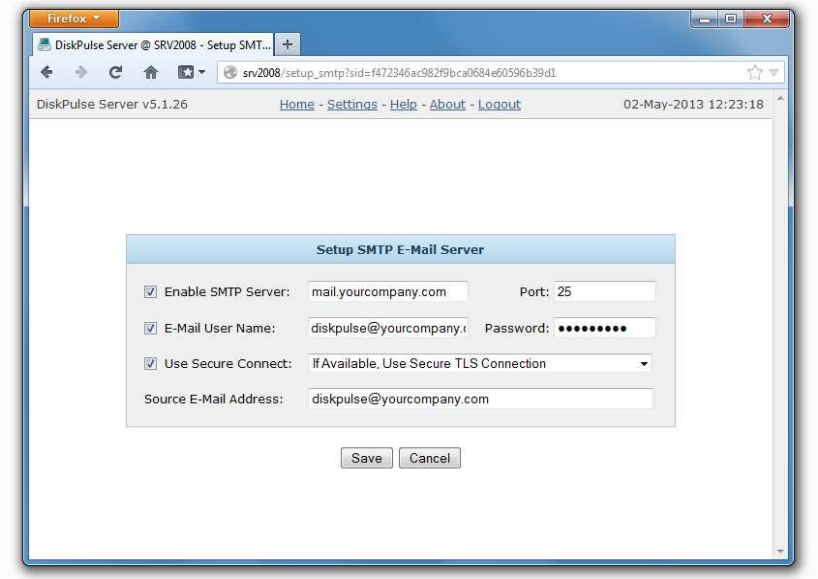
DiskPulse Server uses the TCP/IP port 9120 as the default server control port and the TCP/IP port 80 as the default web access port. Sometimes, these ports may be in use by some other software products or system services. If one or both of these ports are in use, DiskPulse Server will be unable to operate properly and the user needs to change the DiskPulse server control port and/or web access port.



In order to set a custom server control port and/or web access port, click on the 'Setup Server Ports' link located on the main settings page and enter a custom server control port or web-access port to use. If the DiskPulse server should be controlled through the network, make sure the server control port and the web access port are open in the server's firewall.

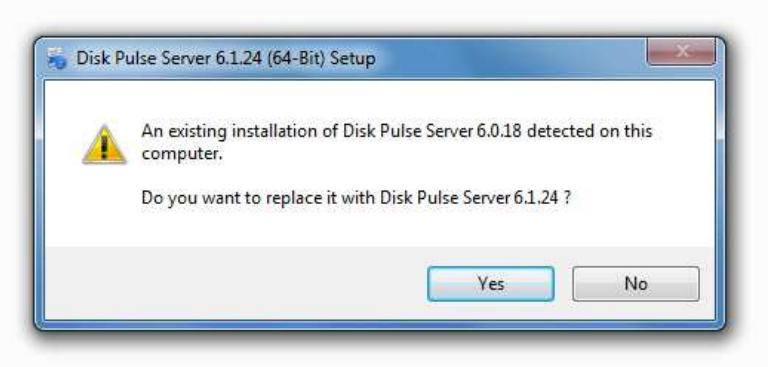
4.21 Configuring E-Mail Server

In order to be able to send E-Mail notifications, open the main settings page and click on the 'Configure E-Mail Server' link. On the E-Mail server configuration page, enter the SMTP server host name, port, user name, password and the source E-Mail address to use to send E-Mail notifications. Optionally, enable the secure SMTP connection mode and select an appropriate security algorithm.

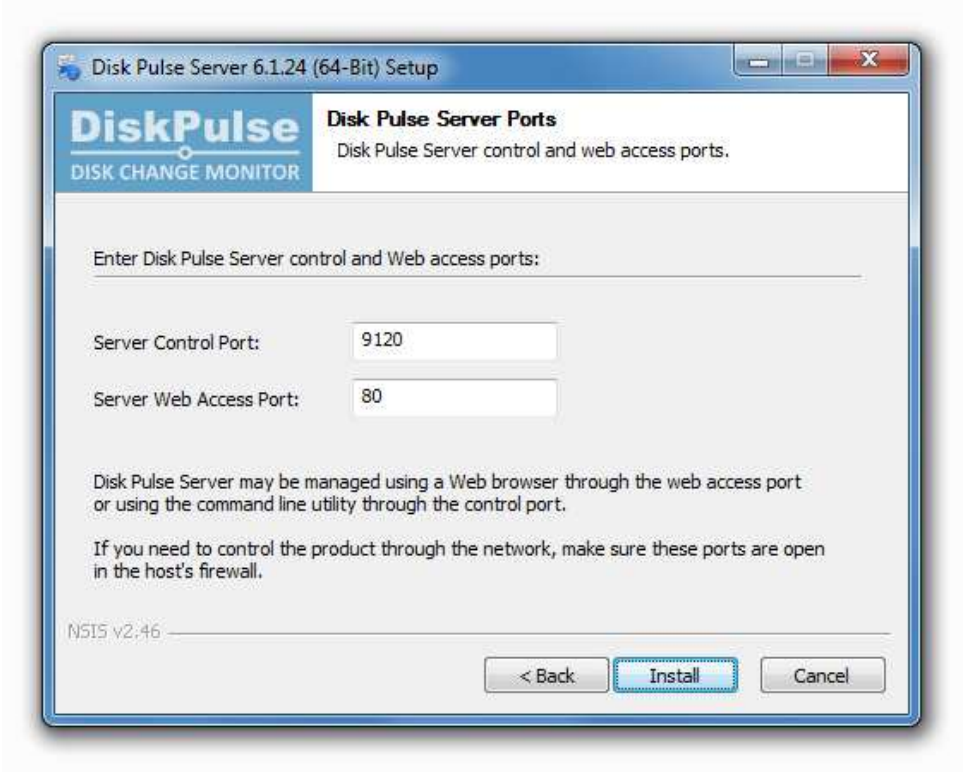


4.22 Updating DiskPulse Server

Flexense develops DiskPulse Server using a fast release cycle with minor product versions, updates and bug fixes released every month and major product versions released every year. New product versions and product updates are published on the product web site and may be downloaded from the following page: http://www.diskpulse.com/downloads.html.


Disk Pulse Server 6.1.24 (64-Bit) Setup
An existing installation of Disk Pulse Server 6.0.18 detected on this computer.
Do you want to replace it with Disk Pulse Server 6.1.24 ?
Yes
No

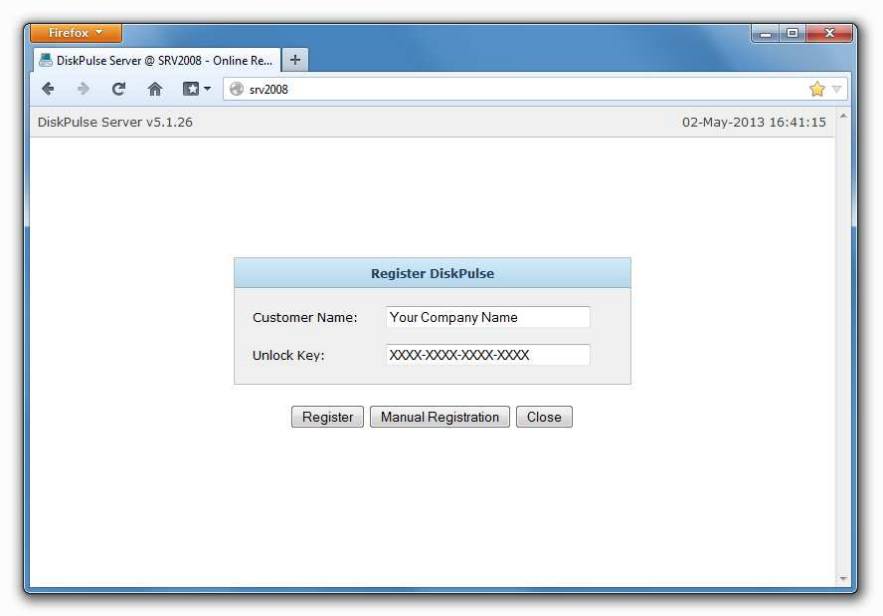
Due to the fact that the product is especially designed for servers running in production environments where stability is a major decision factor, DiskPulse Server updates should be manually installed by the user. In order to update an existing product installation, download the latest product version and just start the setup program.


Disk Pulse Server 6.1.24 (64-Bit) Setup
DiskPulse
DISK CHANGE MONITOR
Disk Pulse Server Ports
Disk Pulse Server control and web access ports.
Enter Disk Pulse Server control and Web access ports:
Server Control Port:
9120
Server Web Access Port:
80
Disk Pulse Server may be managed using a Web browser through the web access port or using the command line utility through the control port.
If you need to control the product through the network, make sure these ports are open in the host's firewall.
NSIS v2.46
< Back
Install
Cancel

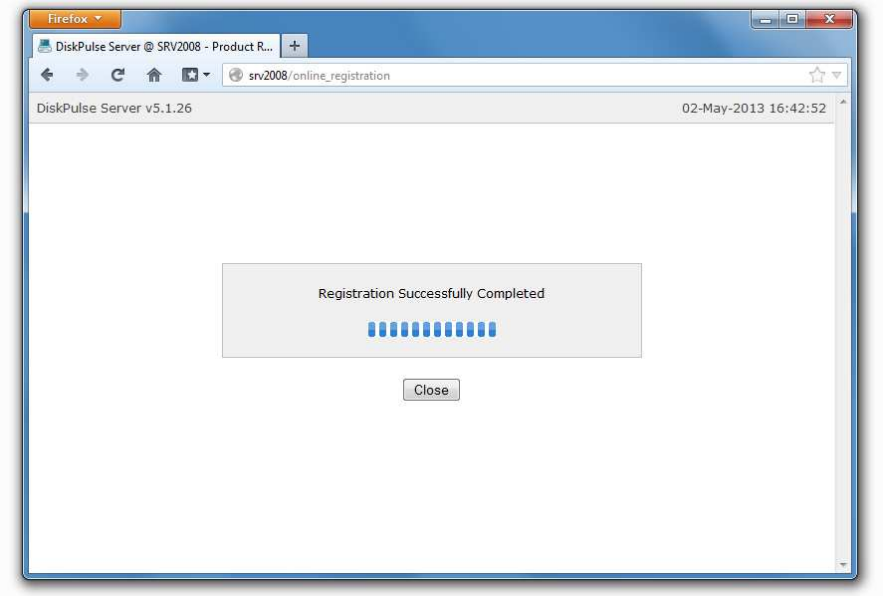
The DiskPulse Server setup program will properly shutdown the running DiskPulse service, update the product and restart the DiskPulse service after finishing the update procedure. All product configuration files, configured disk change monitoring commands, saved disk change monitoring reports and product registration will remain valid and there is nothing to reconfigure or manage after the update.

4.23 Registering DiskPulse Server

Within a couple of hours after purchasing a product license, the customer will receive two e-mail messages: the first one confirming the payment and the second one containing an unlock key, which should be used to register the product. If you will not receive your unlock key within 24 hours, please check your spam box and if the unlock key is not in the spam box contact our support team: **support@flexense.com**.



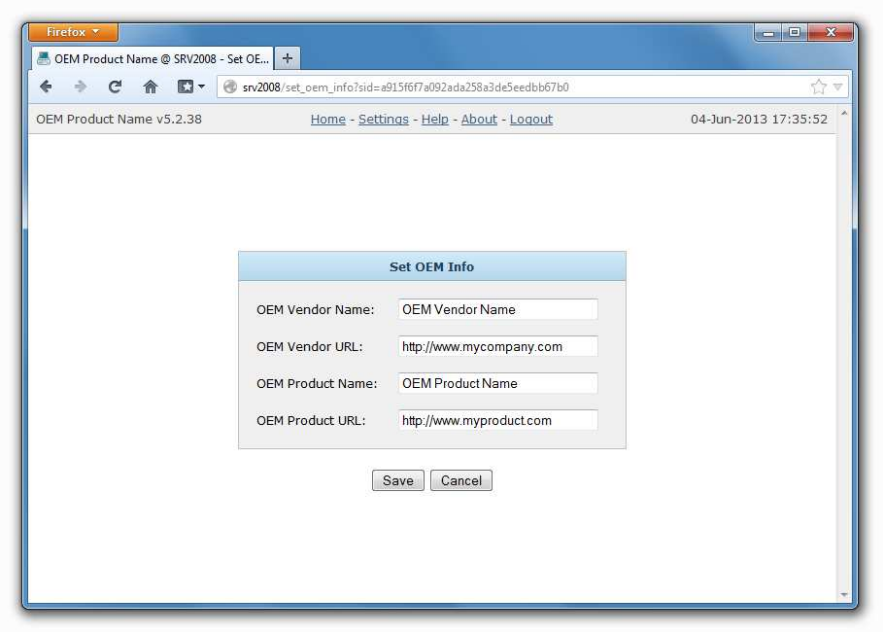
If the computer where DiskPulse Server is installed on is connected to the Internet, login to the DiskPulse server (default user name and password: **admin**/**admin**) using a standard web browser, click on the 'About' link located on the top menu bar, press the 'Register' button, enter your name or your company name, enter the received unlock key and press the 'Register' button.



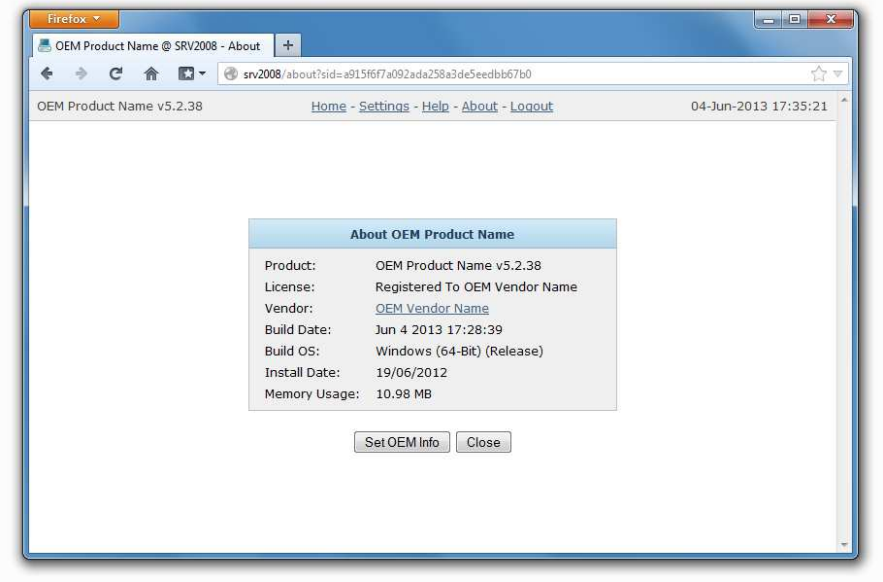
If the computer is not connected to the Internet, press the 'Manual Registration' button, export the product ID file and send the product ID file to **register@diskpulse.com** as an attachment. Within a couple of hours, you will receive an unlock file, which should be imported in order to finish the registration procedure.

4.24 Disk Pulse Server OEM Version

Flexense provides system integrators, value-added distributors and IT service providers with the ability to resell DiskPulse Server and/or provide services based on the product under third-party brand names. Resellers and integrators are provided with the ability to change the product name, the product web site address, the product vendor name and the product vendor web site address.



In order to be able to set custom OEM product and vendor information, the user needs to register the product using a special OEM-Enabled unlock key, which may be purchased on the product purchase page. Once the product is registered using an OEM unlock key, open the 'About' page, press the 'Set OEM Info' button, specify your custom OEM product and vendor information and press the 'Save' button.



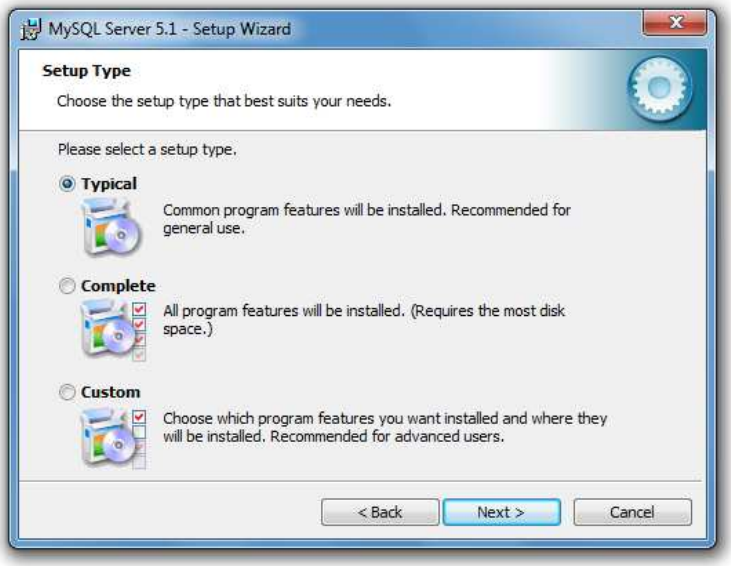
Custom OEM product and vendor information will be displayed on all pages of the DiskPulse web-based management interface, in all types of reports generated by the product and all notification E-Mail messages sent by DiskPulse Server.

5 Appendix

5.1 Installing MySQL Database

DiskPulse is capable of saving disk change monitoring reports in an SQL database. Reports may be saved manually or automatically using conditional report generation actions triggered when a user-specified number of changes detected in a disk or directory. SQL Database integration is available in DiskPulse Ultimate, DiskPulse Server and DiskPulse Enterprise.

In order to configure DiskPulse to use the MySQL database, the user needs to install the following two components: the MySQL Server and the MySQL ODBC connector. First of all, let's install the MySQL Server. Download the latest version of the MySQL server from the MySQL web site and execute the setup program to start the installation procedure. On the setup type page, select the 'Typical' setup type and press the 'Next' button. By default, the setup will install the MySQL server and a command line utility, which will be used to configure the MySQL server.


MySQL Server 5.1 - Setup Wizard
Setup Type
Choose the setup type that best suits your needs.
Please select a setup type.
Typical
Common program features will be installed. Recommended for general use.
Complete
All program features will be installed. (Requires the most disk space.)
Custom
Choose which program features you want installed and where they will be installed. Recommended for advanced users.
< Back
Next >
Cancel

On the next setup page, select the 'Configure the MySQL Server now' option and press the 'Finish' button. The setup program will open a MySQL configuration wizard allowing one to configure basic server settings.

MySQL Server 5.1 - Setup Wizard
Wizard Completed
Setup has finished installing MySQL Server 5.1. Click Finish to exit the wizard.
Configure the MySQL Server now
Use this option to generate an optimized MySQL config file, setup a Windows service running on a dedicated port and to set the password for the root account.
Register the MySQL Server now
Use this option to register this MySQL server with SunConnect service, to receive automatic update notifications on future releases and other free offerings. A browser window will open briefly to allow you to complete the registration.
MySQL
< Back
Finish
Cancel

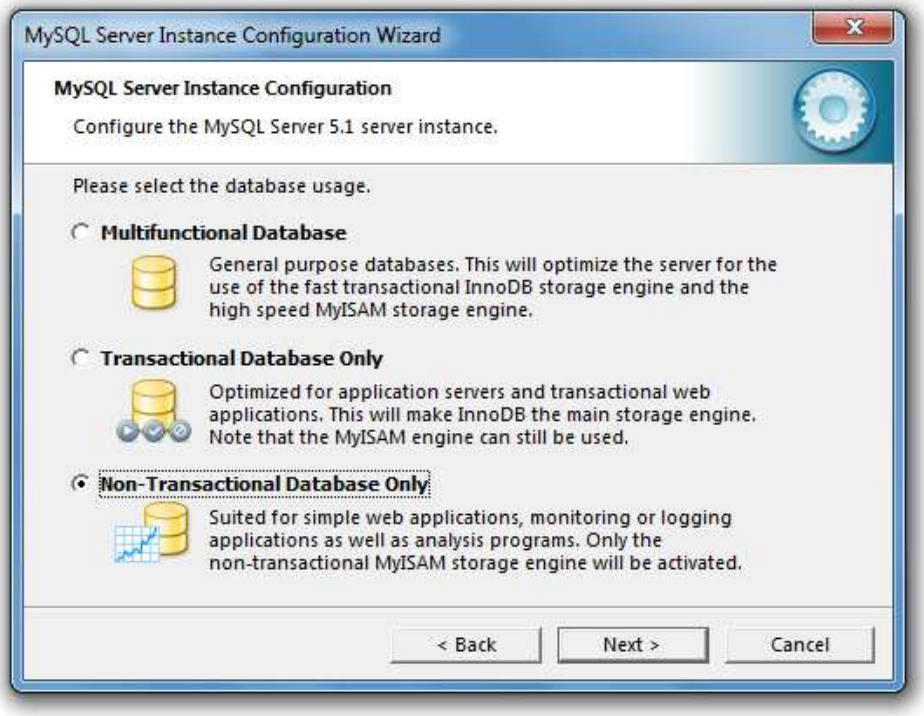
On the next setup page, select the 'Detailed Configuration' option and press the 'Next' button. The detailed configuration mode is required to configure the MySQL server for maximum database performance.

MySQL Server Instance Configuration Wizard
MySQL Server Instance Configuration
Configure the MySQL Server 5.1 server instance.
Please select a configuration type.
Detailed Configuration
Choose this configuration type to create the optimal server setup for this machine.
Standard Configuration
Use this only on machines that do not already have a MySQL server installation. This will use a general purpose configuration for the server that can be tuned manually.
< Back
Next >
Cancel

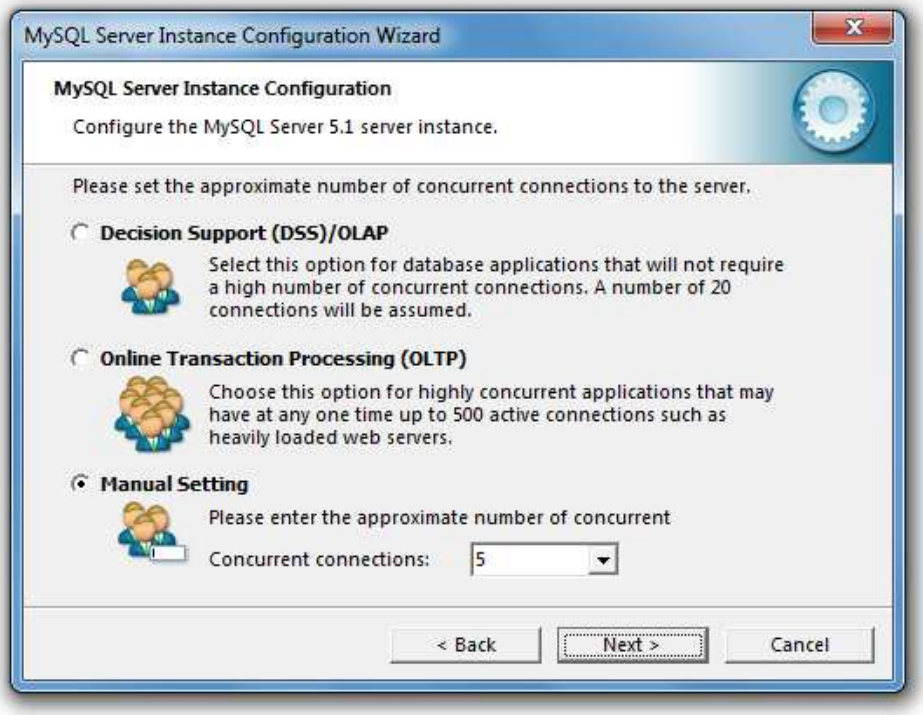
On the next page, select the 'Server Machine' option, which is the most balanced configuration for typical DiskPulse Server and DiskPulse Enterprise workloads. If the server is intended to process large volumes of reports and is dedicated for DiskPulse Enterprise, select the 'Dedicated Server' configuration option.

MySQL Server Instance Configuration Wizard
MySQL Server Instance Configuration
Configure the MySQL Server 5.1 server instance.
Please select a server type. This will influence memory, disk and CPU usage.
Developer Machine
This is a development machine, and many other applications will be run on it. MySQL Server should only use a minimal amount of memory.
Server Machine
Several server applications will be running on this machine. Choose this option for web/application servers. MySQL will have medium memory usage.
Dedicated MySQL Server Machine
This machine is dedicated to run the MySQL Database Server. No other servers, such as a web or mail server, will be run. MySQL will utilize up to all available memory.
< Back
Next >
Cancel

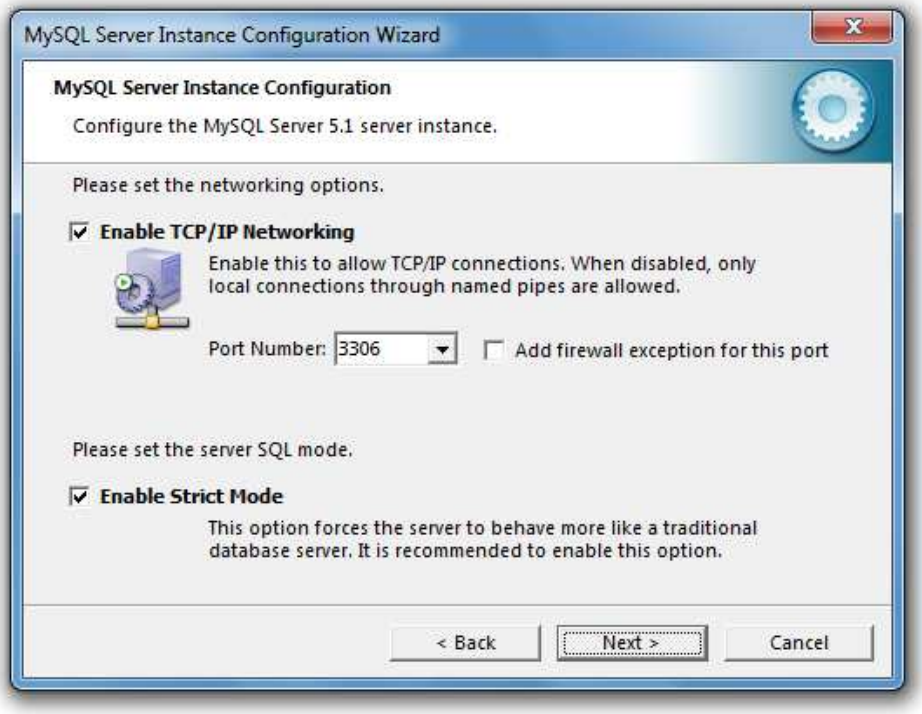
On the next page, select the 'Non-Transactional Database' option. DiskPulse does not perform concurrent insert or modify operations on the database and a transactional database is not required. Moreover, configuring the MySQL server as a non-transactional database will significantly improve the performance of database import operations.


MySQL Server Instance Configuration Wizard
MySQL Server Instance Configuration
Configure the MySQL Server 5.1 server instance.
Please select the database usage.
Multifunctional Database
General purpose databases. This will optimize the server for the use of the fast transactional InnoDB storage engine and the high speed MyISAM storage engine.
Transactional Database Only
Optimized for application servers and transactional web applications. This will make InnoDB the main storage engine. Note that the MyISAM engine can still be used.
Non-Transactional Database Only
Suited for simple web applications, monitoring or logging applications as well as analysis programs. Only the non-transactional MyISAM storage engine will be activated.
< Back
Next >
Cancel

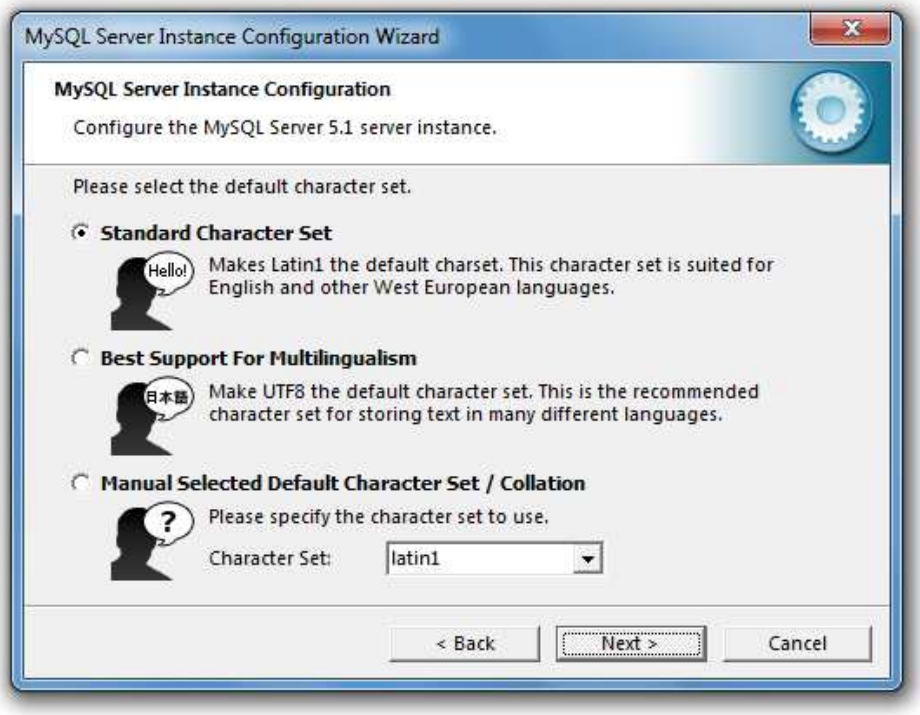
On the next page, select the 'Manual Setting' option and set the number of concurrent database connections to 5, which is the optimal number for DiskPulse Ultimate, DiskPulse Server and DiskPulse Enterprise installations.


MySQL Server Instance Configuration Wizard
MySQL Server Instance Configuration
Configure the MySQL Server 5.1 server instance.
Please set the approximate number of concurrent connections to the server.
Decision Support (DSS)/OLAP
Select this option for database applications that will not require a high number of concurrent connections. A number of 20 connections will be assumed.
Online Transaction Processing (OLTP)
Choose this option for highly concurrent applications that may have at any one time up to 500 active connections such as heavily loaded web servers.
Manual Setting
Please enter the approximate number of concurrent
Concurrent connections:
5
< Back
Next >
Cancel

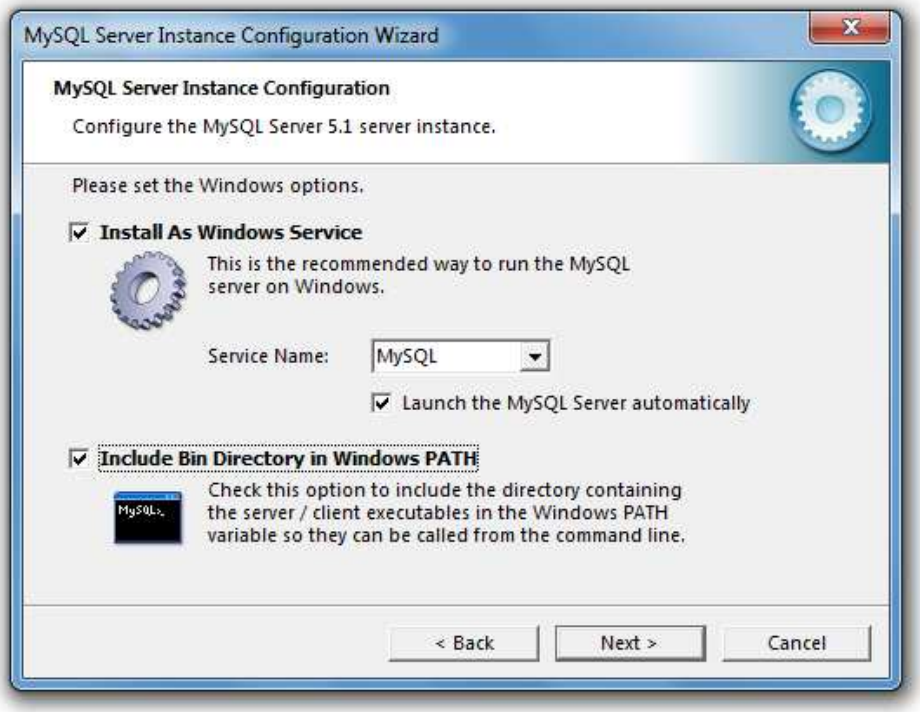
On the next page, enable TCP/IP networking and if the server will be accessed from other computers on the network, add a firewall exception for the MySQL server port. In general, a single MySQL server may be used to collect reports from multiple DiskPulse Servers using remote ODBC connections.


MySQL Server Instance Configuration Wizard
MySQL Server Instance Configuration
Configure the MySQL Server 5.1 server instance.
Please set the networking options.
Enable TCP/IP Networking
Enable this to allow TCP/IP connections. When disabled, only local connections through named pipes are allowed.
Port Number: 3306
Add firewall exception for this port
Please set the server SQL mode.
Enable Strict Mode
This option forces the server to behave more like a traditional database server. It is recommended to enable this option.
< Back
Next >
Cancel

On the next page select an appropriate character set. By default, DiskPulse uses the UTF-8 character set to store names of files and directories, but if there is no need to process Unicode file names, this option may be set to the standard Latin1 character set.


MySQL Server Instance Configuration Wizard
MySQL Server Instance Configuration
Configure the MySQL Server 5.1 server instance.
Please select the default character set.
Standard Character Set
Hello!
Makes Latin1 the default charset. This character set is suited for English and other West European languages.
Best Support For Multilingualism
日本語
Make UTF8 the default character set. This is the recommended character set for storing text in many different languages.
Manual Selected Default Character Set / Collation
?
Please specify the character set to use.
Character Set: latin1
< Back
Next >
Cancel

On the next page, select the 'Install as Windows Service' option and select the 'Include Bin Directory in Windows PATH' option. The PATH option will enable execution of the MySQL command line utility from any location.


MySQL Server Instance Configuration Wizard
MySQL Server Instance Configuration
Configure the MySQL Server 5.1 server instance.
Please set the Windows options.
Install As Windows Service
This is the recommended way to run the MySQL server on Windows.
Service Name:
MySQL
Launch the MySQL Server automatically
Include Bin Directory in Windows PATH
Check this option to include the directory containing the server / client executables in the Windows PATH variable so they can be called from the command line.
< Back
Next >
Cancel

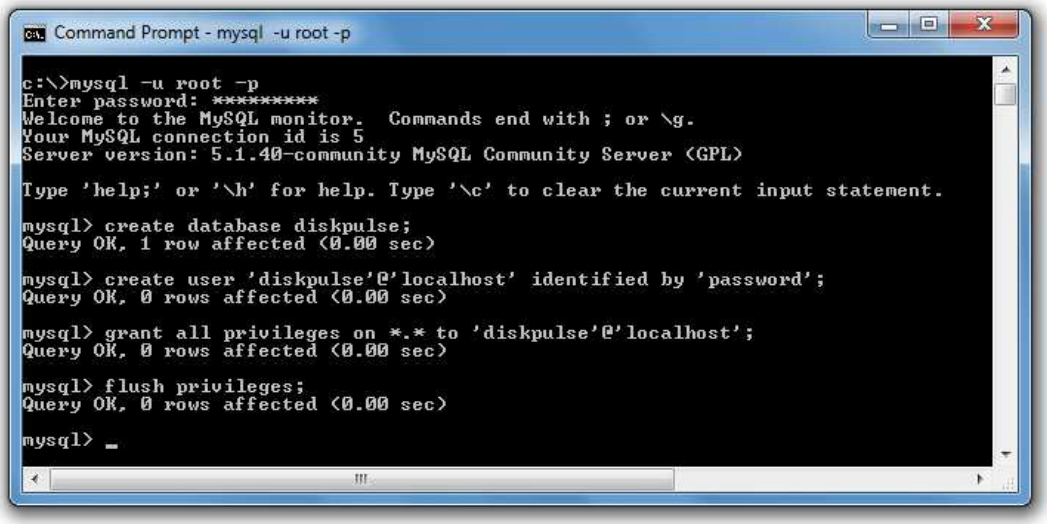
On the next page, select the 'Modify Security Settings' option and specify a root password for the MySQL server, which later will be used to configure regular MySQL users.

MySQL Server Instance Configuration Wizard
MySQL Server Instance Configuration
Configure the MySQL Server 5.1 server instance.
Please set the security options.
Modify Security Settings
New root password:
Enter the root password.
Confirm:
Retype the password.
Enable root access from remote machines
Create An Anonymous Account
This option will create an anonymous account on this server.
Please note that this can lead to an insecure system.
< Back
Next >
Cancel

That's all. Press the 'Next' button to finish the installation procedure.

5.2 Configuring MySQL Database

The MySQL database provides the 'mysql' command line utility, which may be used to configure the database and the user account to be used by DiskPulse.


Command Prompt - mysql -u root -p
c:\>mysql -u root -p
Enter password: *********
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 5
Server version: 5.1.40-community MySQL Community Server (GPL)
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
mysql> create database diskpulse;
Query OK, 1 row affected (0.00 sec)
mysql> create user 'diskpulse'@'localhost' identified by 'password';
Query OK, 0 rows affected (0.00 sec)
mysql> grant all privileges on *.* to 'diskpulse'@'localhost';
Query OK, 0 rows affected (0.00 sec)
mysql> flush privileges;
Query OK, 0 rows affected (0.00 sec)
mysql> _

In order to configure the MySQL database, open the command prompt window and type the following command:

mysql –u root –p

This command will start the 'mysql' command line utility and login to the MySQL server with root permissions. The user will be asked to provide the root password, which was specified during the MySQL server installation procedure.

Once logged in, the user needs to create a database that will be used by DiskPulse to store disk change monitoring reports. In order to do that, type the following command:

create database diskpulse;

Now, add a user account that will be used by DiskPulse to submit reports to the database. Single quotes are required and should be specified exactly as displayed.

create user 'diskpulse'@'localhost' identified by 'password';

Now, grant permissions to the user account using the following command:

grant all privileges on *.* to 'diskpulse'@'localhost';

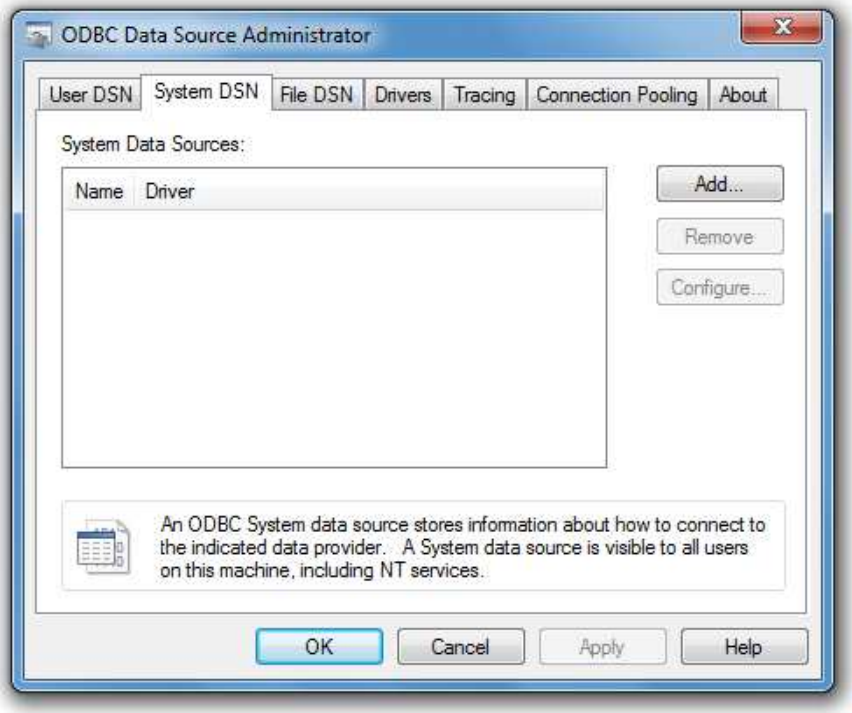
Finally, flush user privileges using the following command.

flush privileges;

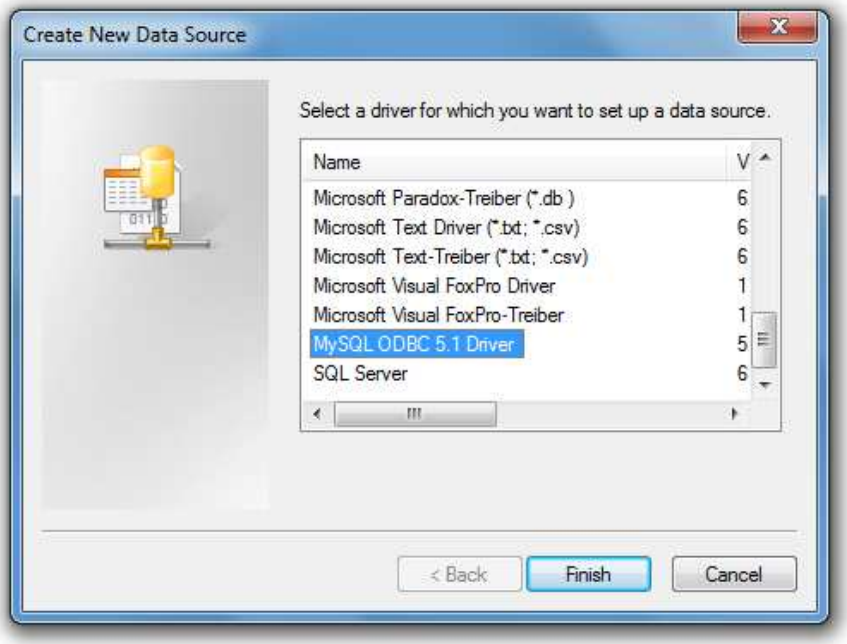
That's all. Now the MySQL server is fully configured. In order to disconnect from the MySQL database, just type '**quit**' in the command window.

5.3 Installing and Configuring MySQL ODBC Data Source

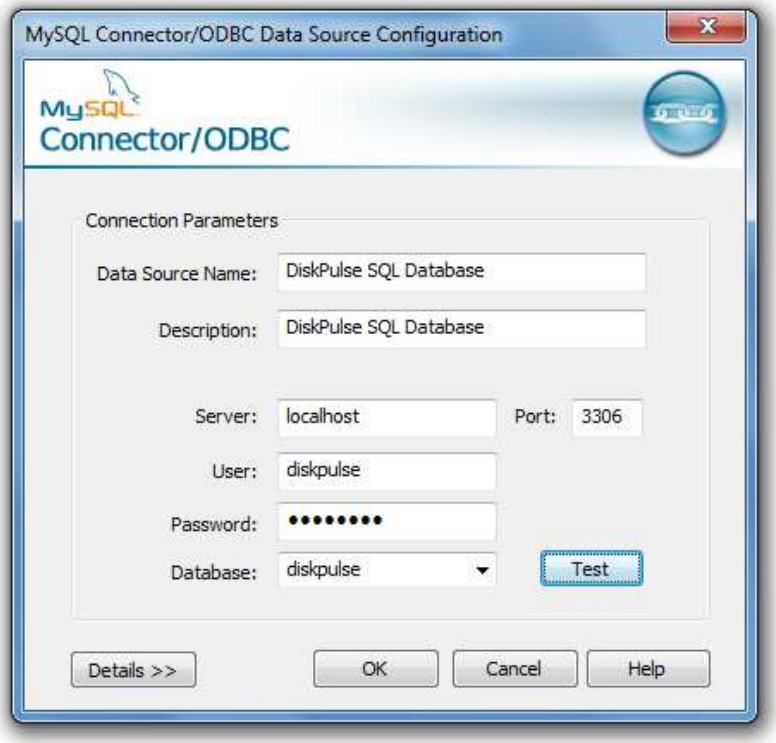
DiskPulse connects to the MySQL database through the ODBC interface. Download an appropriate version of the MySQL ODBC connector from the MySQL web site and execute the setup program. There are no critical configuration options in the MySQL ODBC connector installation procedure and the user can just press the 'Next' button until the last page keeping the default configuration options.



After finished installing MySQL ODBC Connector, open the Windows control panel and select 'Administrative Tools – Data Sources (ODBC)'. On the ODBC Administrator window, select the 'System DSN' tab and press the 'Add' button. On the next page, select the 'MySQL ODBC Driver' and press the 'Finish' button.

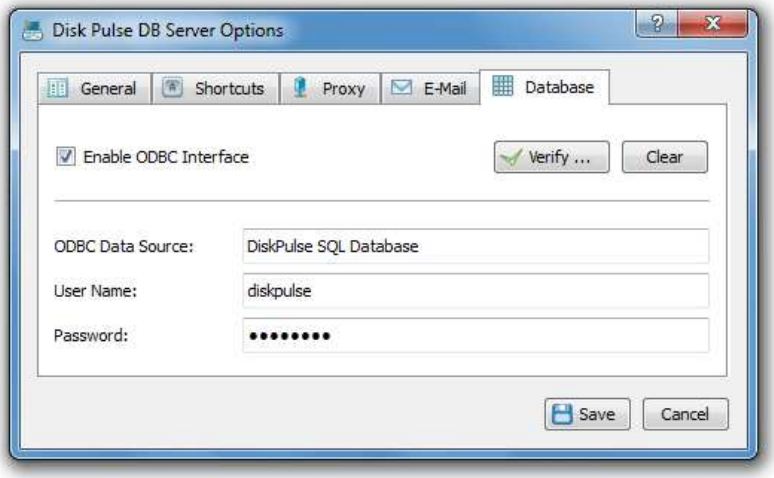


On the next page, enter a new data source name, which will be used by DiskPulse to connect to the database. Specify the name of the host where the MySQL server is running on and enter the MySQL user name and password that should be used by DiskPulse to connect to the database. Finally, select the name of the database that should be used to store disk change monitoring reports. After finished specifying all the required information, press the 'Test' button to check the database connection.



5.4 Configuring DiskPulse Database Connection

In order to configure DiskPulse to use the installed MySQL database, open the options dialog and select the 'Database' tab. Enable the ODBC interface and enter the name of the ODBC data source, the database user name and password that were specified for the ODBC data source. Finally, press the 'Verify' button to check the DiskPulse database connection.



5.5 Supported Operating Systems

Supported 32-Bit Operating Systems

- Windows 2000
- Windows XP
- Windows Vista
- Windows 7
- Windows 8
- Windows 8.1
- Windows 10
- Windows Server 2003
- Windows Server 2008
- Windows Server 2012
- Windows Server 2012 R2

Supported 64-Bit Operating Systems

- Windows XP 64-Bit
- Windows Vista 64-Bit
- Windows 7 64-Bit
- Windows 8 64-Bit
- Windows 8.1 64-Bit
- Windows 10 64-Bit
- Windows Server 2003 64-Bit
- Windows Server 2008 64-Bit
- Windows Server 2012 64-Bit
- Windows Server 2012 R2 64-Bit

5.6 System Requirements

Minimal System Configuration

- Supported Operating System
- 1 GHz or better CPU
- 512 MB of system memory
- 25 MB of free disk space
- Internet Explorer 9, FireFox 12, Chrome 17 or newer is required for proper operation of the DiskPulse Server web-based management interface

Recommended System Configuration

- Supported Operating System
- 2 GHz or better dual-core CPU
- 1 GB of system memory
- 25 MB of free disk space
- Internet Explorer 9, FireFox 12, Chrome 17 or newer is required for proper operation of the DiskPulse Server web-based management interface